



From Research to Discovery

Autophagy

Autophagy-related products from Covalab

Autophagy

Autophagy is a way that cells use for organelles recycling¹. The main process involves the segregation and delivery of cytoplasmic cargo, including proteins and organelles, for degradation by hydrolytic enzymes in lytic vacuoles (lysosomes) also called "autophagolysosomes" or "autolysosomes". Three types of autophagy have been described in the literature so far²:

- **macroautophagy** that sequesters damaged organelles and unused proteins,
- **microautophagy** in which lysosomes directly engulf cytoplasm by invagination of the membrane,
- **chaperone-mediated autophagy** that selectively sequesters proteins containing a consensus sequence recognised by the Hsc70-containing chaperone/co-chaperone complex.

Although described in the early 60's, it is only recently that autophagy has gained interest for its implication as a basal mechanism in cell homeostasis and development. A number of studies are also aimed to determine the role of induced autophagy in host-pathogen interaction³, cell survival under stress conditions and diseases (neurodegenerative diseases and cancer).

Covalab provides antibodies targeting key components of the autophagic pathway, like Beclin-1 and Atg proteins implicated in autophagosomes formation, caspases involved in autophagic programmed cell death or lytic enzymes and membrane proteins playing a role in vacuole function. Discover these antibodies and more products in the following list.

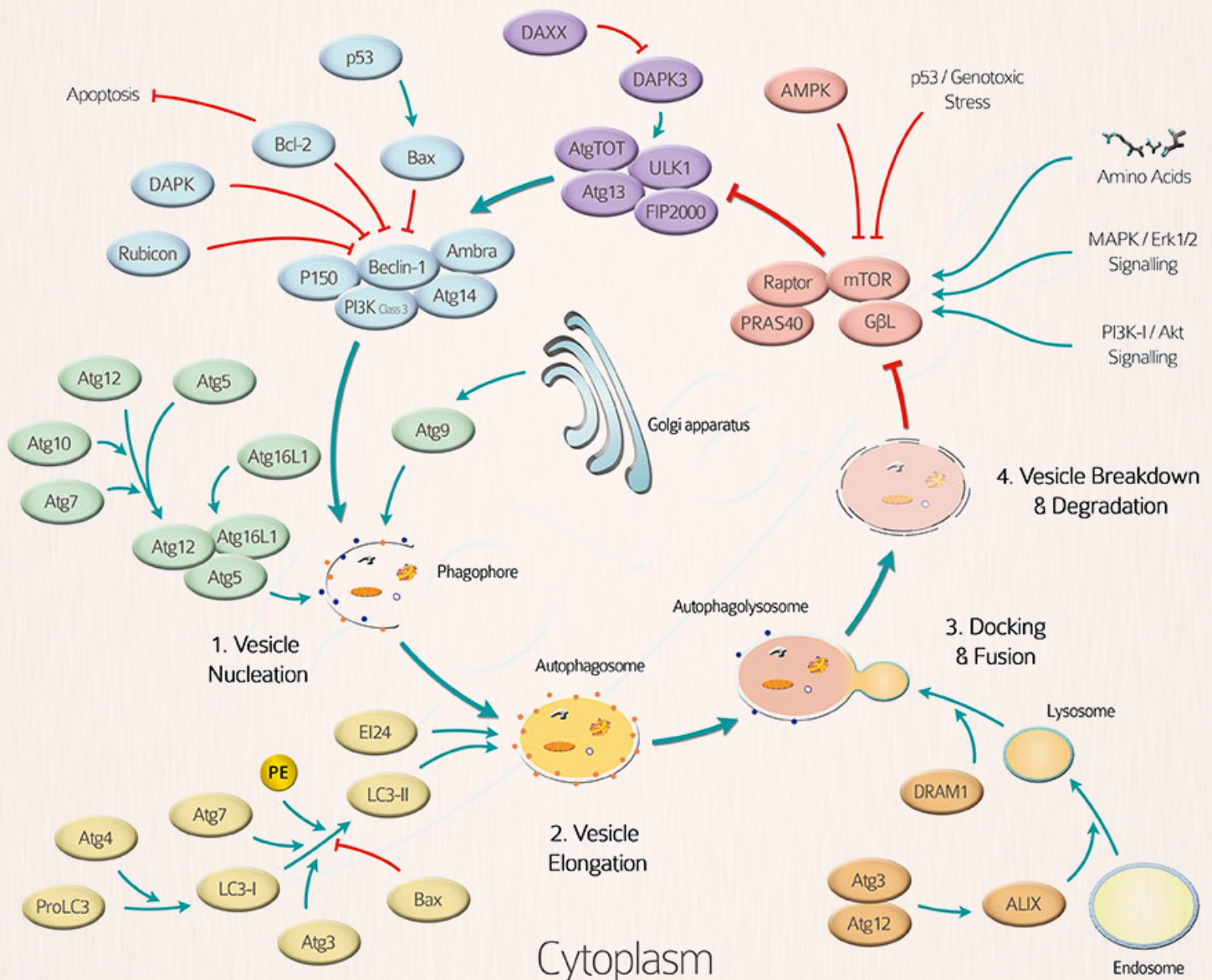


Figure 1: Autophagy pathway overview

1 - Autophagic recycling: lessons from yeast help define the process in plants: Thomson AR, & Vierstra RD.; *Cur. Opin. Plant Biol.* 2005 Apr;8(2):165-73.

2 - Autophagy: process and function; Mizushima N.; *Genes & Dev.* 2007 Nov 15;21:2861-73.

3 - Autophagy and bacterial infectious diseases: Yuk JM., Yoshimori T. and Jo EK.; *Exp. Mol. Med.* 2012 Feb 29;44(2):99-108.

4 - Guidelines for the use and interpretation of assays for monitoring autophagy: Klionsky DJ. et al.; *Autophagy* 2012 Apr;8(4):445-544.

5 - Autophagy in the pathogenesis of disease. Levine B. & Kroemer G.; *Cell* 2008 Jan 11;132(1):27-42.

6 - Activation of the MAPK11/12/13/14 (p38 MAPK) pathway regulates the transcription of autophagy genes in response to oxidative stress induced by a novel copper complex in HeLa cells: Zhong W. et al.; *Autophagy* 2014 Jul;10(7):1285-300.

7 - Regulation of PI3K3/VPS34 complexes by mTOR in nutrient stress-induced autophagy: Yuan HX., Russell RC. & Guan KL.; *Autophagy* 2013 Dec;9(12):1983-95.

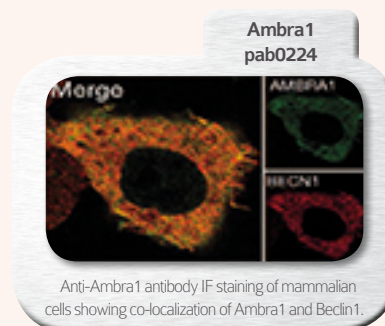
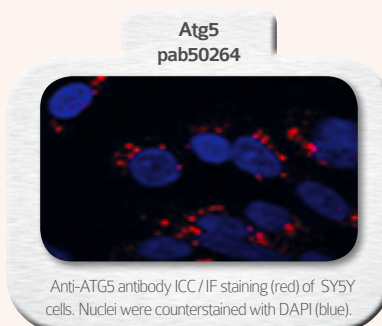
8 - The p53-induced gene E24 is an essential component of the basal autophagy pathway: Zhao YG. et al.; *J. Biol. Chem.* 2012 Dec 7;287(50):42053-63.

9 - DRAM1 regulates autophagy flux through lysosomes: Zhang XD. et al.; *PLoS One* 2013 May 17;8(5):e63245.

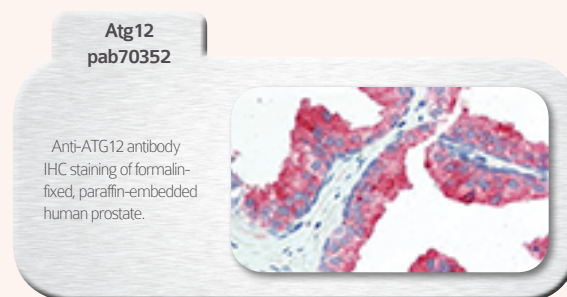
10 - DAP-kinase and autophagy: Levin-Salomon V. et al.; *Apoptosis* 2014 Feb;19(2):346-56.

11 - ATG12-ATG3 interacts with Alix to promote basal autophagic flux and late endosome function: Murrow L. et al.; *Nat. Cell. Biol.* 2015 Mar;17(3):300-10.

ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
ALIX (<i>clone 8E8</i>)	Mouse	Hu	ELISA, IHC, WB	mab0083-P
ALIX	Rabbit	Hu	ELISA, IF, WB ...	pab0204
Ambra1	Rabbit	Hu, Ms, Rat	ELISA, IHC, WB ...	pab0224
Ambra1	Rabbit	Hu, Ms, Rat	ELISA, IHC, WB ...	pab0224-P
Ambra1 (aa1-50)	Rabbit	Hu, Ms, Rat ...	IHC - P, WB	pab74660
Ambra1 (C-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab70312



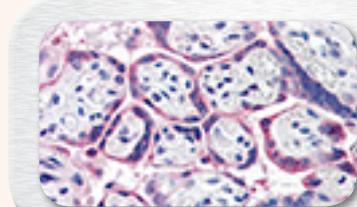
Atg4B	Rabbit	Hu, Xe, Zfi ...	IHC - P, WB	pab74475
Atg4D (C-Terminus)	Goat	Hu, Mk	ELISA, IHC - P	pab73953
Atg5	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB	pab72230
Atg5	Rabbit	Hu, Ms, Zfi ...	ICC, IHC - P, WB	pab50264
Atg5 [Biotin]	Rabbit	Hu, Ms, Zfi ...	IHC, WB	pab51215
Atg5 [HRP]	Rabbit	Hu, Ms, Zfi ...	ICC, IHC, WB	pab51218
Atg5 [DyLight 488]	Rabbit	Hu, Ms, Zfi ...	IHC, WB	pab51217
Atg5 [DyLight 550]	Rabbit	Hu, Ms, Zfi ...	IHC, WB	pab51219
Atg5 [DyLight 650]	Rabbit	Hu, Ms, Zfi ...	IHC, WB	pab51216
Atg7 (N-Terminus)	Rabbit	Hu, Ms	ICC, IHC - P, WB	pab70357
Atg7 (C-Terminus)	Rabbit	Hu, Ms	ICC, IHC - P, WB	pab70356
Atg7 (aa558-569)	Rabbit	Hu	IF, IHC - P, WB	pab70082
Atg9A	Rabbit	Hu, Ms, Rat ...	IHC - P, WB	pab50275
Atg9A (C-Terminus)	Rabbit	Hu	IHC - P, WB	pab70358
Atg9B / APG9L2 (C-Terminus)	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB	pab70359
Atg12 (Internal)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab70352
Atg13 (C-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab70353



Atg16L1	Rabbit	Hu, Ms	WB	pab50331
Atg16L1	Rabbit	Hu, Ms, Rat ...	EM, IHC, WB	pab50312
Atg16L1 (N-Terminus)	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab70355

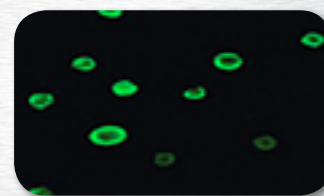
ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
Atg16L1 (Internal)	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab70354
Atg16L1 (C-Terminus)	Goat	Hu, Ms	ELISA, IHC - P	pab75590
Atg16L1 [Biotin]	Rabbit	Hu, Ms, Rat ...	WB	pab51444
Atg16L1 [Biotin]	Rabbit	Hu, Ms	WB	pab51567
Atg16L1 [HRP]	Rabbit	Hu, Ms, Rat ...	WB	pab51447
Atg16L1 [HRP]	Rabbit	Hu, Ms	WB	pab51570
Atg16L1 [DyLight 488]	Rabbit	Hu, Ms, Rat ...	WB	pab51446
Atg16L1 [DyLight 488]	Rabbit	Hu, Ms	WB	pab51569
Atg16L1 [DyLight 550]	Rabbit	Hu, Ms, Rat ...	WB	pab51448
Atg16L1 [DyLight 550]	Rabbit	Hu, Ms	WB	pab51571
Atg16L1 [DyLight 650]	Rabbit	Hu, Ms, Rat ...	WB	pab51445
Atg16L1 [DyLight 650]	Rabbit	Hu, Ms	WB	pab51568

Atg16L1
pab70354



Anti-Atg16L1 antibody
IHC staining of formalin-
fixed, paraffin-embedded
human placenta.

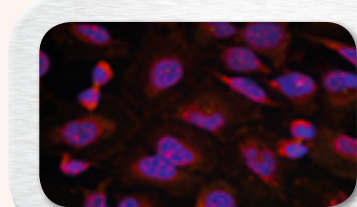
Bax
pab74874



Anti-BAX antibody IF
staining of HL60 cells.

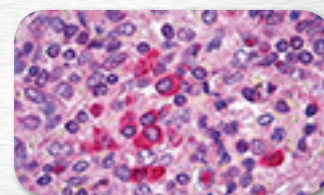
Atg16L2	Rabbit	Hu	ELISA, IHC, WB	pab0567
Bax (clone 2D2)	Mouse	Hu	IHC, WB	mab60036
Bax (clone 6A7)	Mouse	Hu, Ms, Rat	WB	mab60037
Bax (clone 6A7)	Mouse	Hu, Ms, Mk ...	IHC - P, IP, WB	mab71211
Bax (N-Terminus)	Rabbit	Hu	ICC, IHC - P, WB	pab74874
Bax (N-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, IP, WB	pab74913
Bax (aa1-50)	Rabbit	Hu, Ms, Rat	ELISA, IF, IHC - P	pab73965
Bax Inhibitor-1 (clone 20F430)	Mouse	Hu, Ms, Rat	IHC - P	mab70160
Bax Inhibitor-1 (clone 20F565)	Mouse	Hu, Ms, Rat	IHC - P, WB	mab70482
Bax Inhibitor-1 (clone OsBI-1)	Rabbit	O. sati.	ELISA, IHC, WB	pab0273
Bcl-2 (clone 11C5)	Mouse	Hu	IHC - P, IP, WB	mab71374
Bcl-2	Rabbit	Hu	IHC - P, WB	pab75275
Bcl-2 (Internal)	Rabbit	Hu, Ms, Rat	IF, IHC - P, WB	pab73966
Bcl-2 (Ser70)	Rabbit	Hu	IF, IHC - P, WB	pab71957
Bcl-2 (Thr56)	Rabbit	Hu	IF, IHC - P, WB	pab71956

Bcl-2
pab71957



Anti-Bcl-2 antibody IF
staining of methanol fixed
HeLa cells.

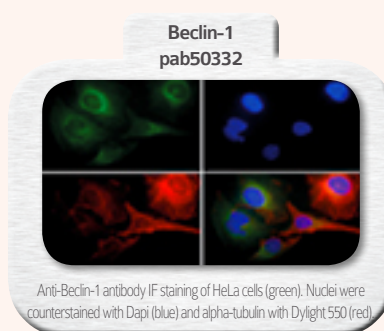
Bcl-2
pab75275



Anti-Bcl-2 antibody IHC
staining of formalin-fixed,
paraffin-embedded
human spleen
lymphocytes.

Beclin-1 (clone 1B7)	Mouse	Hu, Ms, Po ...	IHC - P, WB	mab50756
Beclin-1 (clone 1B7) [Biotin]	Mouse	Hu, Ms, Po ...	IHC - P, WB	mab50757
Beclin-1 (clone 1B7) [HRP]	Mouse	Hu, Ms, Po ...	IHC - P, WB	mab50760

ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
Beclin-1 (<i>clone 1B7</i>) [DyLight 488]	Mouse	Hu, Ms, Po ...	IHC - P, WB	mab50759
Beclin-1 (<i>clone 1B7</i>) [DyLight 550]	Mouse	Hu, Ms, Oth ...	IHC - P, WB	mab50761
Beclin-1 (<i>clone 1B7</i>) [DyLight 650]	Mouse	Hu, Ms, Po ...	IHC - P, WB	mab50758
Beclin-1 (<i>clone 4H10</i>)	Mouse	Hu	IHC - P, WB	mab50763
Beclin-1 (<i>clone 4H10</i>) [Biotin]	Mouse	Hu	IHC - P, WB	mab50764
Beclin-1 (<i>clone 4H10</i>) [HRP]	Mouse	Hu	IHC - P, WB	mab50767
Beclin-1 (<i>clone 4H10</i>) [DyLight 488]	Mouse	Hu	IHC - P, WB	mab50766
Beclin-1 (<i>clone 4H10</i>) [DyLight 550]	Mouse	Hu	IHC - P, WB	mab50768
Beclin-1 (<i>clone 4H10</i>) [DyLight 650]	Mouse	Hu	IHC - P, WB	mab50765
Beclin-1	Rabbit	Hu, Ms	ICC, IF, WB	pab50057
Beclin-1	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab50126
Beclin-1	Rabbit	Hu, Ms, Xe ...	ICC, IHC - P, WB ...	pab50332

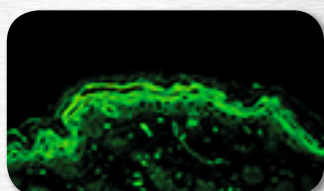


Beclin-1 (N-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab70420
Beclin-1 (C-Terminus)	Rabbit	Hu, Ms	ICC, IHC - P, WB	pab70419
Beclin-1 [Biotin]	Rabbit	Hu, Ms, Chick ...	IHC - P, WB	pab51573
Beclin-1 [Biotin]	Rabbit	Hu, Ms, Rat	IHC - P, WB ...	pab52074
Beclin-1 [HRP]	Rabbit	Hu, Ms, Xe ...	IHC - P, WB	pab51576
Beclin-1 [HRP]	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab52077
Beclin-1 [DyLight 488]	Rabbit	Hu, Ms, Xe ...	IHC - P, WB	pab51575
Beclin-1 [DyLight 488]	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab52076
Beclin-1 [DyLight 550]	Rabbit	Hu, Ms, Xe ...	IHC - P, WB	pab51577
Beclin-1 [DyLight 550]	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab52078
Beclin-1 [DyLight 650]	Rabbit	Hu, Ms, Xe ...	IHC - P, WB	pab51574
Beclin-1 [DyLight 650]	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab52075
Beclin-2	Rabbit	Hu	WB	pab50315
Beclin-2	Rabbit	Hu	WB	pab50316
Beclin-2 [Biotin]	Rabbit	Hu	WB	pab51462
Beclin-2 [Biotin]	Rabbit	Hu	WB	pab51468
Beclin-2 [HRP]	Rabbit	Hu	WB	pab51465
Beclin-2 [HRP]	Rabbit	Hu	WB	pab51471
Beclin-2 [DyLight 488]	Rabbit	Hu	WB	pab51464
Beclin-2 [DyLight 488]	Rabbit	Hu	WB	pab51470
Beclin-2 [DyLight 550]	Rabbit	Hu	WB	pab51466
Beclin-2 [DyLight 550]	Rabbit	Hu	WB	pab51472
Beclin-2 [DyLight 650]	Rabbit	Hu	WB	pab51463
Beclin-2 [DyLight 650]	Rabbit	Hu	WB	pab51469
DAPK3 (Internal)	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB	pab70746
DRAM1 (N-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, WB	pab70807
DRAM1 (C-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, WB	pab70806
El24 (C-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, WB	pab70846

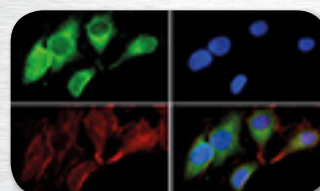
ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
ERK	Rabbit	Hu	ELISA, IHC, WB	pab0254
ERK1 + ERK2	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab74077
ERK1 + ERK2	Mouse	Hu, Ms, Rat	IHC - P, IP, WB	mab70411
ERK1 + ERK2	Rabbit	Hu, Ms, D. mel	WB	pab60131
ERK1 + ERK2 (aa330-379)	Rabbit	Hu, D. mel	ICC, IHC - P, WB ...	pab75690

ERK1 + ERK2
pab75690

Anti ERK1 & 2 antibody
ICC staining of mouse
back skin.


GRP78
pab50363

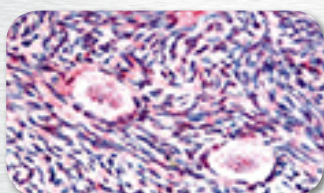
Anti-GRP78 antibody
IF staining of HeLa cells
(green). Nuclei were
counterstained with Dapi
(blue) and alpha-tubulin
with DyLight 550 (red).



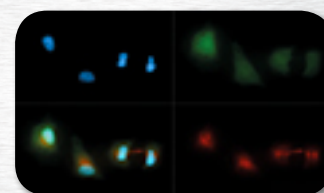
GRP78 (clone 1H11-1H7)	Mouse	Hu	ELISA, WB	mab60202
GRP78 (clone 6H4-2G7)	Mouse	Hu, Ms, Fun ...	ELISA, WB	mab60203
GRP78	Rabbit	Hu, Ms, Rat	ICC, IF, WB	pab50363
GRP78	Rabbit	Ms, Rat	ICC, IF, WB	pab51859
GRP78	Rabbit	Hu, Ms, Sh ...	ICC, IF, WB ...	pab50362
GRP78	Rabbit	Hu, Ms	IF, IHC - P, WB	pab74566
GRP78 (aa550-600)	Rabbit	Hu	IHC - P, WB	pab74511
GSK3 Beta	Rabbit	Hu, Rat, Bov ...	IF, IHC - P, WB	pab75234
GSK3 Beta (C-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, WB	pab75210
GSK3 Beta (pSer9)	Rabbit	Hu	GS, IHC - P, WB ...	pab70152
LC3	Rabbit	Hu, Ms, Zfi...	FC, IF, WB ...	pab52327
LC3	Rabbit	Hu, Ms, Zfi ...	ICC, IHC, WB ...	pab50206
LC3	Rabbit	Hu, Ms, Zfi ...	ICC, IHC - P, WB ...	pab50207
LC3 [Biotin]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50623
LC3 [Biotin]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50670
LC3 [HRP]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50626
LC3 [HRP]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50673
LC3 [DyLight 488]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50625
LC3 [DyLight 488]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50672
LC3 [DyLight 550]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50627
LC3 [DyLight 550]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50674
LC3 [DyLight 650]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50624
LC3 [DyLight 650]	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB ...	pab50671

GSK3 Beta
pab70152

Anti-GSK3 Beta
antibody IHC staining of
formalin-fixed, paraffin-
embedded human
ovary.

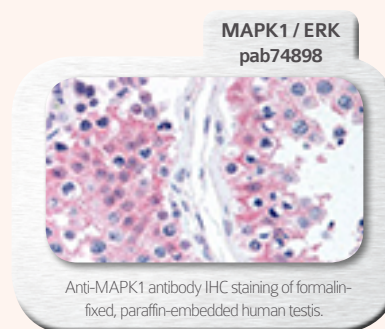
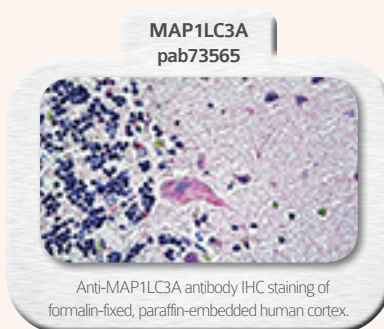
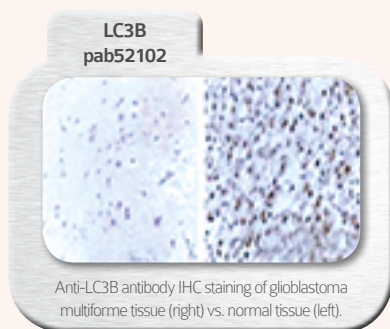

LC3
pab50206

Anti-LC3 antibody IF
staining of HeLa cells
(green). Nuclei were
counterstained with Dapi
(blue) and alpha-tubulin
with DyLight 550 (red).

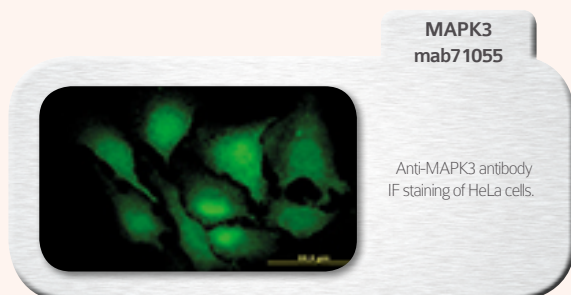


LC3B	Rabbit	Hu, Ms, Zfi ...	FC, ICC, IHC ...	pab50233
LC3B [Biotin]	Rabbit	Hu, Ms, Zfi ...	IF, IHC, WB ...	pab52099

ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
LC3B [HRP]	Rabbit	Hu, Ms, Zfi ...	ICC, IHC - F, WB ...	pab52102
LC3B [DyLight 488]	Rabbit	Hu, Ms, Zfi ...	IF, IHC, WB ...	pab52101
LC3B [DyLight 550]	Rabbit	Hu, Ms, Zfi ...	IF, IHC, WB ...	pab52103
LC3B [DyLight 650]	Rabbit	Hu, Ms, Zfi ...	IF, IHC, WB ...	pab52100
MAP1LC3A	Rabbit	Hu, Ms, Bov ...	ELISA, IHC, WB	pab0902-P
MAP1LC3A (aa1-50)	Rabbit	Hu, Ms, Zfi ...	IHC - P, WB	pab74434
MAP1LC3A (aa97-106)	Goat	Hu, Ms, Rat, Ca	IHC - P	pab73565



MAP1LC3C (aa121-135)	Goat	Hu, Mk	IHC - P	pab73571
MAPK1 / ERK	Mouse	Hu, Ms, Rat	ELISA, IHC - P, WB	mab71410
MAPK1 / ERK (clone 4C11C11C4)	Mouse	Hu	IHC, WB ...	mab71205
MAPK1 / ERK	Rabbit	Hu, Ms, Rat	IHC - P, WB	pab75168
MAPK1 / ERK (C-Terminus)	Rabbit	Hu, Ms, Rat	IHC - P, IP, WB	pab74898
MAPK3 / ERK1 (clone 3C9)	Mouse	Hu	IF, IHC - P, WB	mab71055
MAPK3 / ERK1 (aa350-400)	Rabbit	Hu	IHC - P, WB	pab74613
MAPK3 / ERK1 (Internal)	Rabbit	Hu, Ms, Rat ...	IHC - P	pab71685
MAPK3 / ERK1 (Internal)	Rabbit	Hu, Mk	IHC - P	pab71686
MAPK3 / ERK1 (Internal)	Rabbit	Hu, Ms, Rat ...	IHC - P	pab71687
MAPK3 / ERK1 (pThr202/pTyr204)	Rabbit	Hu	ELISA, IHC - P, WB	pab70924

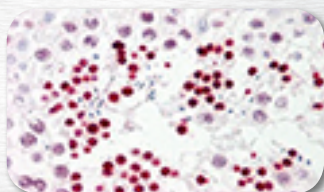


mTOR	Rabbit	Hu, Ms	ELISA, IHC, WB	pab0894-P
mTOR	Rabbit	Hu, Ms, Rat	IHC, IP	pab60223
mTOR	Rabbit	Hu, Ms, Rat	IP, WB	pab60224
mTOR (N-Terminus)	Rabbit	Hu, Ms	ICC, IHC - P, WB	pab71788
mTOR (C-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab74267
mTOR (C-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab74323
mTOR (aa2440-2457)	Rabbit	Hu, Ms, Rat	IF, IHC - P, WB	pab70158
mTOR (pSer2448)	Rabbit	Hu	ELISA, IHC - P, WB	pab70076
p53 (clone 240)	Mouse	Hu	FC, IHC, WB ...	mab60388
p53 (clone B-F34)	Mouse	Hu	ELISA	mab30071
p53 (clone B-F34)	Mouse	Hu	ELISA-C	mab30288
p53 (clone B-P3)	Mouse	Hu	FC, IHC, WB ...	mab30056

ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
p53 (clone BP53-12)	Mouse	Hu	ICC, IHC - P, WB ...	mab70600
p53 (clone D01)	Mouse	Hu	IHC, IP, WB ...	mab60389
p53 (clone H53C2)	Mouse	Hu	ELISA, IHC, WB ...	mab0052-P
p53 (clone PAb1801)	Mouse	Hu	IHC, IP, WB ...	mab60390
p53 (N-Terminus)	Rabbit	Hu, Rat	ELISA, IHC - P, WB	pab74269
p53 (N-Terminus)	Rabbit	Hu, Ms, Rat	IF, IHC - P, WB	pab74271
p53 (aa283-332)	Rabbit	Hu, Ms, Rat	IF, IHC - P, WB	pab74391
p53 (aa344-393)	Rabbit	Hu	IF, IHC - P, WB	pab74272
p53 (aa344-393)	Rabbit	Hu, Ms, Rat	IF, IHC - P, WB	pab74392
p53 (AcTyr379)	Rabbit	Hu, Ms, Rat	ICC, IF, IHC - P ...	pab73997
p53 (clone B-P3) [Biotin]	Mouse	Hu	ELISA-D	mab30420

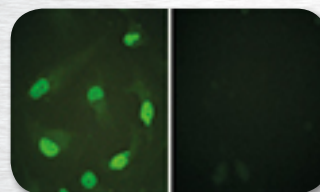
p53
pab74392

Anti-p53 antibody IHC staining of formalin-fixed, paraffin-embedded human testis.



p53 (AcTyr379)
pab73997

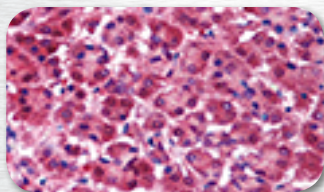
Anti-p53 (Ac-Lys379) antibody IF staining of HeLa cells incubated with (right) or without (left) the corresponding blocking peptide.



p53DINP1	Rabbit	Hu, Ms, Rat	WB	pab60247
PARK7	Rabbit	Hu, Ms, Chick	FA, ICC, WB ...	pab50148
PARK7	Rabbit	Hu, Ms	WB	pab60254
PARK7	Rabbit	Hu, Ms, Rat	ICC, IHC - P, WB ...	pab50920
PARK7 (C-Terminus)	Goat	Hu, Mk	ELISA, IHC - P, WB	pab73154
PARK7 (aa167-189)	Rabbit	Hu, Mk	ELISA, IHC - P, WB	pab72052
PARK7 (aa177-189)	Rabbit	Hu, Mk, Zfi	ELISA, IHC - P, WB	pab70048

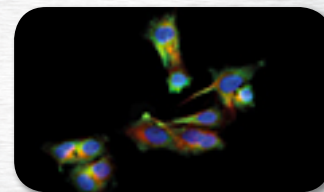
PARK7
pab70048

Anti-PARK7 antibody IHC staining of formalin-fixed, paraffin-embedded human pancreas.



PINK1
pab52761

Anti-PINK1 antibody IF staining of HepG2 cells (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).

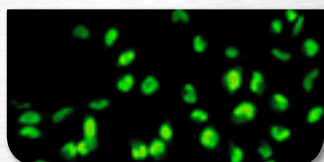


PINK1	Rabbit	Hu, Ms	ICC, IHC, WB ...	pab50138
PINK1	Rabbit	Hu, Ms, Rat	WB	pab50180
PINK1	Rabbit	Hu	WB	pab50992
PINK1	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52761
PINK1	Rabbit	Hu	WB	pab60264
PINK1 (aa484-504)	Rabbit	Hu, Mk	IHC - P, WB	pab72090
PINK1 [Biotin]	Rabbit	Hu, Ms, Rat	WB	pab50934
PINK1 [Biotin]	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52762
PINK1 [HRP]	Rabbit	Hu, Ms, Rat	WB	pab50937
PINK1 [HRP]	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52765
PINK1 [DyLight 488]	Rabbit	Hu, Ms, Rat	WB	pab50936
PINK1 [DyLight 488]	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52764

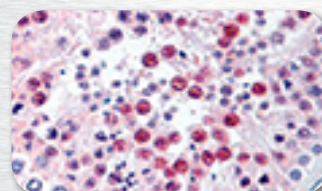
ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
PINK1 [DyLight 550]	Rabbit	Hu, Ms, Rat	WB	pab50938
PINK1 [DyLight 550]	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52766
PINK1 [DyLight 650]	Rabbit	Hu, Ms, Rat	WB	pab50935
PINK1 [DyLight 650]	Rabbit	Hu, Ms	ICC, IF, IHC - P	pab52763
Rab1-GTP recombinant	HEK293 (human transgene)	Hu, Ms, Ca ...	ICC, IP	rec10010

SIRT1
mab70724

Anti-SIRT1 antibody IF staining of HeLa cells.


SIRT1
pab74907

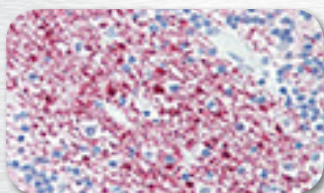
Anti-SIRT1 antibody IHC staining of formalin-fixed, paraffin-embedded human testis.



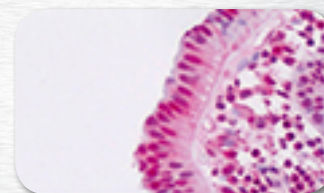
SIRT1 (clone 7B7)	Mouse	Hu	IF, IHC - P, WB	mab70724
SIRT1 (clone SR119-1AG)	Mouse	Hu	ELISA, WB	mab10064
SIRT1 (clone SR128-6AG)	Mouse	Hu	ELISA, WB	mab10065
SIRT1	Rabbit	Hu	ELISA, WB	pab10104
SIRT1 (Internal)	Goat	Hu	ELISA, IHC - P, WB	pab75638
SIRT1 (C-Terminus)	Rabbit	Hu	IHC - P, IP, WB	pab74907
SIRT1 [Biotin]	Rabbit	Hu	IHC, WB	pab52690
SIRT1 [HRP]	Rabbit	Hu	IHC, WB	pab52693
SIRT1 [DyLight 488]	Rabbit	Hu	IHC, WB	pab52692
SIRT1 [DyLight 550]	Rabbit	Hu	IHC, WB	pab52694
SIRT1 [DyLight 650]	Rabbit	Hu	IHC, WB	pab52691
SIRT2 (clone S2R233-1)	Mouse	Hu	ELISA, WB	mab10059
SIRT2	Rabbit	Hu	ELISA, WB	pab10105
SIRT2 (N-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab73213
SIRT2 (C-Terminus)	Rabbit	Hu, Ms, Rat	ELISA, IHC - P, WB	pab73212

SIRT2
pab73212

Anti-Ubiquitin antibody IHC staining of formalin-fixed, paraffin-embedded human cerebellum.


Ubiquitin
mab71566

Anti-Ubiquitin antibody IHC staining of formalin-fixed, paraffin-embedded human colon.

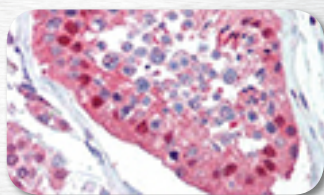


Spinster	Rabbit	Hu	ELISA, IF, WB	pab0241
Spinster-1	Rabbit	Hu	ELISA, IHC, WB	pab0237
Spinster-2	Rabbit	Hu, Ms	ELISA, WB	pab0239
Spinster-2	Rabbit	Hu, Ms	ELISA, WB	pab0239-P
Spinster-3	Rabbit	Ms	ELISA, WB	pab0240
Ubiquitin (clone 5B9.B3)	Mouse	Hu, Ms, Bov ...	ELISA, WB	mab60540
Ubiquitin (clone 5B9-B3)	Mouse	Hu, Ms, Bov ...	ELISA, IHC - P, WB	mab71566
Ubiquitin (clone 6C11.B3)	Mouse	Hu, Ms, Bov ...	ELISA, WB	mab60541
Ubiquitin (clone 6C11-B3)	Mouse	Hu, Ms, Bov ...	ELISA, IHC - P, WB	mab71567
Ubiquitin (clone 10C2-2)	Mouse	Oth.	ELISA, IHC, WB	mab0001

ANTIBODY TARGET	HOST	SPECIES	APPLICATIONS	CAT #
Ubiquitin	Mouse	Hu, Ms, Bov ...	FC, IHC - P, WB	mab70475
Ubiquitin	Rabbit	Hu, Ma, D. mel	WB	pab60334
Ubiquitin	Rabbit	Bov, Fi, Xe ...	ICC, IHC - P, WB ...	pab75564
Ubiquitin (mutant form)	Rabbit	Hu	IHC - P, WB	pab75258
Ubiquitin C (N-Terminus)	Rabbit	Hu	IHC - P, WB	pab74564
Ubiquitin C (C-Terminus)	Rabbit	Hu	IF, IHC - P, WB	pab74586
ULK1	Rabbit	Hu, Mk	IHC - P, WB	pab74474
ULK1 (aa704-722)	Rabbit	Hu, Mk	ELISA, IHC - P	pab75485
Vacuole Membrane Protein 1	Rabbit	Ms	ELISA, IHC, WB	pab0419

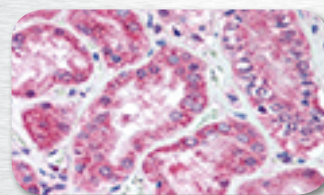
Ubiquitin
pab74586

Anti-Ubiquitin antibody
IHC staining of formalin-fixed, paraffin-embedded human testis.



ULK1
pab74474

Anti-ULK1 antibody
IHC staining of formalin-fixed, paraffin-embedded human kidney.



2 Kits

TARGET	SPECIES	APPLICATIONS	CAT #
BAX	Hu	ELISA	kit20059
BAX	Rat	ELISA	kit20061
BAX	Po	ELISA	kit20063
FOXO1	Hu	ELISA	kit20066
p53	Hu	ELISA	kit30202

3 Proteins

NAME	SPECIES	CAT #
Atg3	Hu	pro10391
Beclin-1	Hu	pro10390
Sirtuin 1	Hu	pro10183
Sirtuin 1	Ms	pro10208
Sirtuin 2	Hu	pro10187

Sirtuin 2
pro10187



4

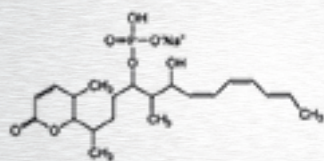
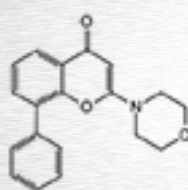
Peptides

NAME	SPECIES	APPLICATIONS	CAT #
Atg5	Hu, Ms, Mk ...	IHC - P, WB	pep50069
Atg9A	Hu, Ms, Chick ...	IHC, WB	pep50076
Atg16L1	Hu, Ms	WB	pep50102
Atg16L1	Hu, Ms, Rat ...	WB	pep50092
Beclin-1	Hu, Ms, Rat	ICC, IHC, WB ...	pep50144
Beclin-2	Hu	WB	pep50095
Beclin-2	Hu	WB	pep50096
GRP78	Hu, Ms, Chick ...	FC, ICC, WB ...	pep50163
GRP78	Ms, Rat	ICC, IF, WB	pep50164
LC3	Hu, Ms, Zfi ...	IHC, WB	pep50016
PINK1	Hu	ICC, IHC, WB ...	pep50003
PINK1	Hu, Ms	ELISA, ICC, WB ...	pep50001

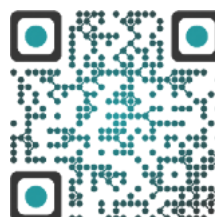
5

Chemical Compounds

NAME	CAT #
Cytostatin	chem10308
Kdo2-Lipid A (ready-to-use)	chem10333
LY-294,002	chem10062

Cytostatin
chem10308LY-294,002
chem10062

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