

Anti-ATG12 antibody ab155589

[27 References](#) [6 Images](#)

Overview

Product name	Anti-ATG12 antibody
Description	Rabbit polyclonal to ATG12
Host species	Rabbit
Specificity	ab155589 detects free ATG12 and ATG12 conjugated to Atg5.
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human ATG12 aa 1-187. The exact sequence is proprietary.
Positive control	293T, A431, NIH3T3 and Rat brain whole cell lysates; Human U87 xenograft tissue; HeLa cells untreated or treated with Tunicamycin.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.00</p> <p>Preservative: 0.025% Proclin 300</p> <p>Constituents: 79% PBS, 20% Glycerol (glycerin, glycerine)</p>
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab155589 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 15 kDa.
IHC-P		1/100 - 1/1000.
ICC/IF		1/100 - 1/1000.

Target

Function

Ubiquitin-like protein required for autophagy. Conjugated to ATG3 and ATG5.

Tissue specificity

Ubiquitous.

Sequence similarities

Belongs to the ATG12 family.

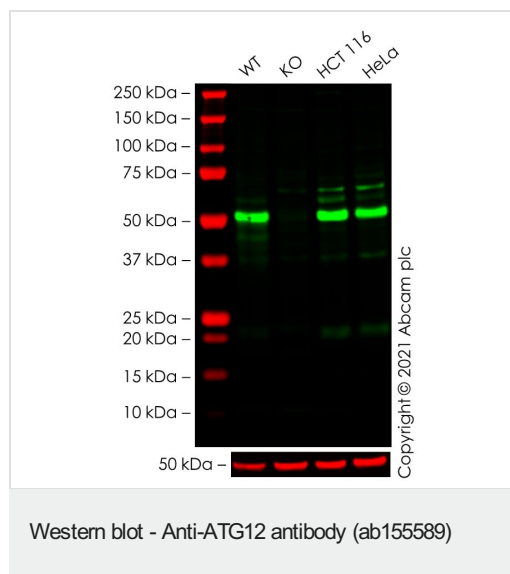
Domain

Shares weak sequence similarity with ubiquitin family, but contains an 'ubiquitin superfold' and the C-terminal Gly is required for isopeptide linkage.

Cellular localization

Cytoplasm.

Images



All lanes : Anti-ATG12 antibody (ab155589) at 1/500 dilution

Lane 1 : Wild-type THP-1 cell lysate

Lane 2 : ATG12 knockout THP-1 cell lysate

Lane 3 : HCT 116 cell lysate

Lane 4 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

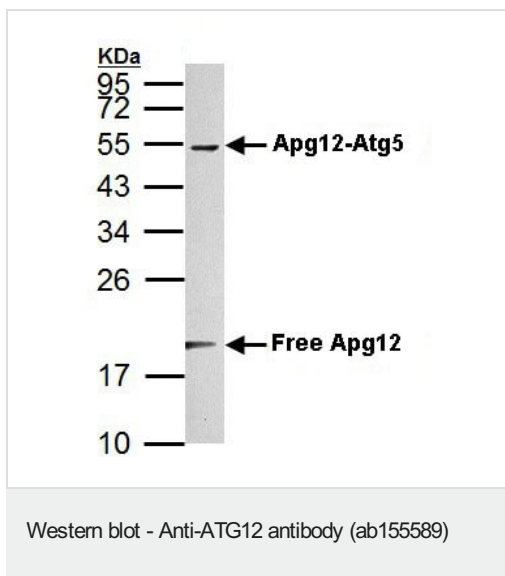
Performed under reducing conditions.

Predicted band size: 15 kDa

Observed band size: 52 kDa

False colour image of Western blot: Anti-ATG12 antibody staining at 1/500 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab155589 was shown to bind specifically to ATG12. A band likely to be the unfunctional complex with ATG5 was observed at 52 kDa in wild-type THP-1 cell lysates with no signal

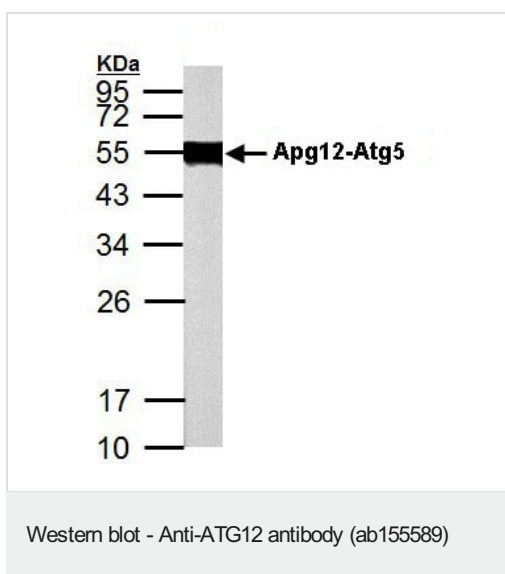
observed at this size in Atg12 knockout cell line **ab277831** (knockout cell lysate **ab278183**) - unconjugated functional form not observed at 15 kDa. To generate this image, wild-type and Atg12 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Anti-ATG12 antibody (ab155589) at 1/1000 dilution + NIH3T3 whole cell lysate at 30 µg

Predicted band size: 15 kDa

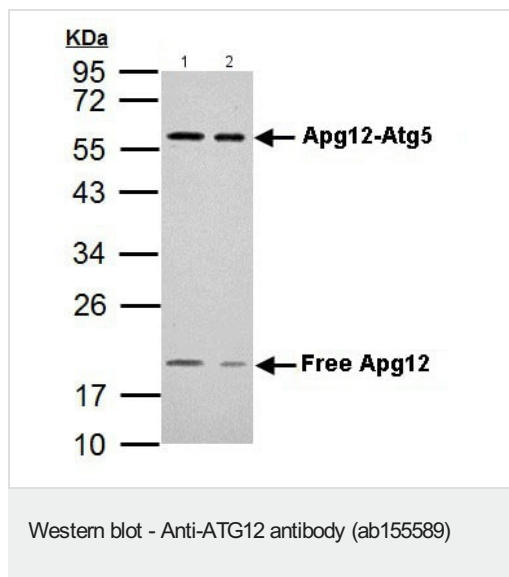
12% SDS PAGE



Anti-ATG12 antibody (ab155589) at 1/1000 dilution + Rat brain whole cell lysate at 50 µg

Predicted band size: 15 kDa

12% SDS PAGE



All lanes : Anti-ATG12 antibody (ab155589) at 1/1000 dilution

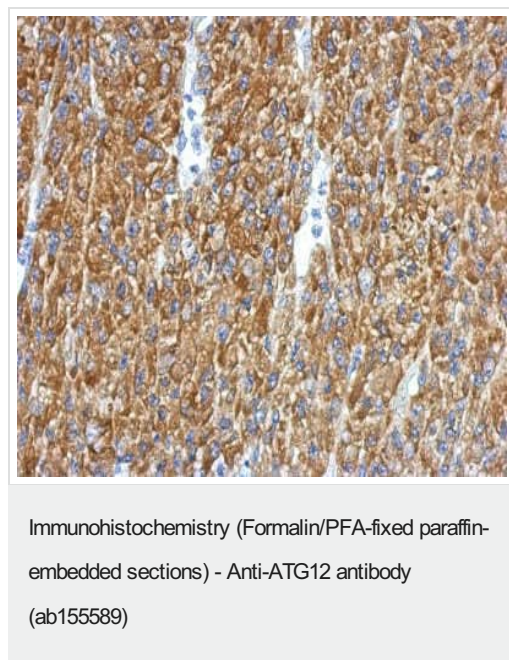
Lane 1 : 293T whole cell lysate

Lane 2 : A431 whole cell lysate

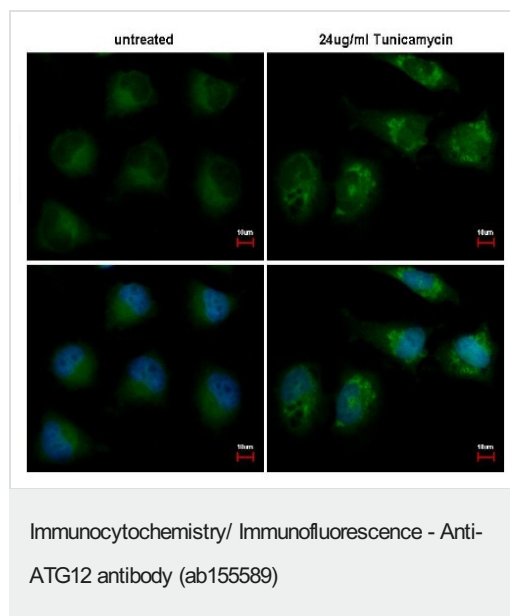
Lysates/proteins at 30 µg per lane.

Predicted band size: 15 kDa

12% SDS PAGE



Immunohistochemical analysis of paraffin-embedded U87 (human) xenograft tissue labeling ATG12 with ab155589 at 1/500 dilution.



Immunofluorescent analysis of paraformaldehyde-fixed HeLa cells labeling ATG12 with ab155589 at 1/500 dilution. Lower panels co-stained with Hoechst 33342.

Cells were fixed in 4% paraformaldehyde for 15 minutes.

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