

Store at -20C

#13733

GABARAP (E1J4E) Rabbit mAb



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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H M R	Endogenous	14, 16	Rabbit IgG	O95166	11337

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:200

- Tanida, I. et al. (2004) *J Biol Chem* 279, 36268-76.
- Hemelaar, J. et al. (2003) *J Biol Chem* 278, 51841-50.
- Tanida, I. et al. (2001) *J Biol Chem* 276, 1701-6.
- Tanida, I. et al. (2002) *J Biol Chem* 277, 13739-44.
- Chakrama, F.Z. et al. (2010) *Autophagy* 6, 495-505.
- Pellerin, I. et al. (1993) *Mol Cell Endocrinol* 90, R17-21.
- Vernier-Magnin, S. et al. (2001) *Biochem Biophys Res Commun* 284, 118-25.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

GABARAP (E1J4E) Rabbit mAb recognizes endogenous levels of total GABARAP protein. This antibody does not cross-react with other GABARAP family members.

Species Reactivity:
Human, Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg40 of human GABARAP protein.

Background

GABA_A receptor associated protein (GABARAP) is an Atg8 family protein with a key role in autophagy, which was originally discovered as a protein associated with the GABA_A receptor regulating receptor trafficking to the plasma membrane (1). Proteins in this family, including microtubule-associated protein light chain 3 (LC3) and GATE-16 (GABARAPL2), become incorporated into the autophagosomal membranes following autophagic stimuli such as starvation (2). Like the other family members, GABARAP is cleaved at its carboxyl terminus, which leads to conjugation by either of the phospholipids phosphatidylethanolamine or phosphatidylserine (3,4). This processing converts GABARAP from a type I to a type II membrane bound form involved in autophagosome biogenesis. Processing of GABARAP involves cleavage by Atg4 family members (5,6) followed by conjugation by the E1 and E2 like enzymes Atg7 and Atg3 (7,8). GABARAPL1/GEC1, a protein that is highly related to GABARAP, was identified as an estrogen inducible gene, and is also associated with autophagosomes (9-11).

- Wang, H. et al. (1999) *Nature* 397, 69-72.
- Shpilka, T. et al. (2011) *Genome Biol* 12, 226.
- Kabeya, Y. et al. (2004) *J Cell Sci* 117, 2805-12.
- Sou, Y.S. et al. (2006) *J Biol Chem* 281, 3017-24.

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

APPLICATIONS KEY WB: Western Blot IP: Immunoprecipitation IHC: Immunohistochemistry ChIP: Chromatin Immunoprecipitation IF: Immunofluorescence F: Flow Cytometry E-P: ELISA-Peptide

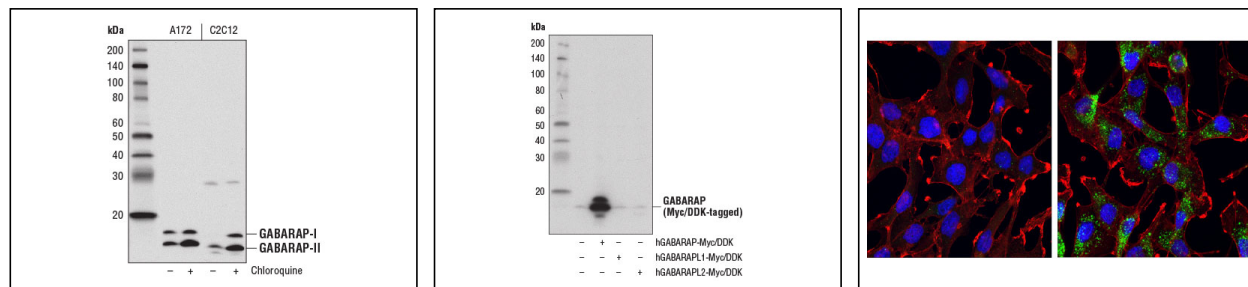
CROSS-REACTIVITY KEY H: human M: mouse R: rat Hm: hamster Mk: monkey Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Cø: C. elegans Hr: horse All: all species expected

IMPORTANT: For primary antibodies recommended for western blotting applications, we recommend incubating the membrane with diluted antibody at 4°C with gentle shaking overnight. Please refer to the western blot protocol found on the product web page for the antibody-specific diluent recommendation.

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Western blot analysis of A172 and C2C12 cells, untreated (-) or chloroquine-treated (50 μ M, overnight; +), using GABARAP (E1J4E) Rabbit mAb.

Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with constructs expressing Myc/DDK-tagged full-length human GABARAP (hGABARAP-Myc/DDK; +), human GABARAPL1 (hGABARAPL1-Myc/DDK; +), or human GABARAPL2 (hGABARAPL2-Myc/DDK; +), using GABARAP (E1J4E) Rabbit mAb.

Confocal immunofluorescent analysis of A172 cells, untreated (left) and chloroquine-treated (50 μ M, overnight; right), using GABARAP (E1J4E) Rabbit mAb (green) and β -Actin (8H10D10) Mouse mAb #3700 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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