

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GABARAP in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 853641
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human GABARAP Accession # O95166
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

γ-Aminobutyric Acid Receptor-associated Protein (GABARAP), also known as Apg8p1, is 117 amino acid (aa) protein with a predicted molecular weight of 14 kDa. It is a member of the GABARAP subfamily of the Autophagy-related 8 (Atg8) family of proteins (1). The GABARAP subfamily also includes GABARAPL1. GABARAP/Apg8p1 has 100% aa sequence identity with its mouse and rat orthologs and is orthologous to yeast Atg8. Atg8 family members show structural similarity with Ubiquitin, but lack aa sequence similarity. GABARAP/Apg8p1 was first described for its putative involvement GABA A Receptor trafficking (2,3). However, it is best known for its role in autophagy (1,4). GABARAP/Apg8p1 covalently attaches to phosphatidylethanolamine (PE) in the phagophore (autophagosome precursor) membrane using a Ubiquitin-like conjugation system that includes Ubiquitin-activating (E1)-, Ubiquitin-conjugating (E2)-, and Ubiquitin Ligase (E3)-like enzymes. Here it is involved in the later stages of autophagosome maturation (4,5). It may also be involved in cargo recruitment to autophagosomes (1).

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