

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Rab7a in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Rab9a and rhRab9b is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Rab7a Thr2-Ser204 Accession # P51149
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.

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

Rab7a (Ras-related protein Rab 7A; also RAB7) is a 22-24 kDa member of the Rab family, Small GTPase superfamily of proteins. It is widely expressed, and found in cells diverse as skeletal muscle, neurons, osteoclasts and macrophages. Rab7a plays a key role in the formation of phagolysosomes. In particular, Rab7a-GTP becomes associated with early phagosomes. The GTP form of Rab7a first recruits RILP, a molecule that interacts with ORPL1 and promotes the formation of a dynactin:dynein complex. This complex now initiates the movement of the phagosome along microtubules, where it fuses with lysosomes and endosomes at select points, creating phagolysosomes. Human Rab7a is 207 amino acids (aa) in length. It contains multiple Rab family and subfamily motifs, and concludes with a C-terminal CXC prenylation sequence (aa 205-207). There is one utilized phosphorylation site at Tyr183. Full-length human and mouse Rab7a have identical aa sequences. Notably, however, point mutations with single aa changes are noted in both species. By contrast, human Rab7a and Rab7b share less than 50% aa sequence identity, each representing the product of distinct genes.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.