

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human UFM1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human UFM1 Met1-Gly83 Accession # P61960
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.
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

UFM1 (Ubiquitin-fold modifier 1) is a 9.1 kDa ubiquitin-like protein, displaying a similar tertiary structure to ubiquitin. The UFM1 conjugation system is a novel Ubiquitin-like (Ubl) system whose physiological target(s) and biological functions remain largely undefined. To be activated, UFM1 is processed C-terminally by two specific proteases, UfSP1 and UfSP2. After processing, UFM1 is activated via the E1 enzyme, UBA5, and then conjugated by the E2 enzyme, UFC1. UFL1 has been identified as the E3 enzyme. However, cellular functions associated with target proteins that are modified by UFM1 are still unknown. Genetic study has demonstrated that the Ufm1-activating enzyme Uba5 is indispensable for erythroid differentiation in mice, highlighting the importance of this novel system in animal development. It was found that the UFM1 system was transcriptionally up-regulated by disturbance of the ER homeostasis and inhibition of vesicle trafficking.

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.