

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 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

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.

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