

DESCRIPTION

Species Reactivity	Human
Specificity	Detects Human UBE2I/Ubc9 in direct Elisa.
Source	Monoclonal Mouse IgG ₁ Clone # 1050001
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived human UBE2I/Ubc9 protein Met1-Ser158 Accession # P63279
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

Ubiquitin-conjugating Enzyme E2I (UBE2I), also known as Ubiquitin-conjugating Enzyme 9 (Ubc9), is a ubiquitously expressed protein with a predicted molecular weight of 20 kDa. Human UBE2I/Ubc9 shares 100% amino acid sequence identity with the mouse and rat orthologs. UBE2I/Ubc9 catalyzes the addition of the Ubiquitin-like protein SUMO to target proteins (1,2). SUMO is transferred from a Ubiquitin-like activating (E1) enzyme heterodimer consisting of SAE1 and UBA2 to Cys93 of UBE2I/Ubc9 (3). In contrast to most Ubiquitin-conjugating (E2) enzymes that function in a complex with Ubiquitin ligases (E3s), UBE2I/Ubc9 can interact directly with protein substrates and may also play a role in substrate recognition (4). UBE2I/Ubc9 mediates the SUMOylation of a variety of proteins including RanGAP1, HDAC4, and PML (5,6). Post-translational modifications of UBE2I/Ubc9, such as auto-SUMOylation at Lys14 or Ser71 phosphorylation by CDC2/CDK1, alter UBE2I/Ubc9 catalytic activity and target protein recognition (5,7). UBE2I/Ubc9-dependent SUMOylation reduces the levels of the stem cell marker Nanog, implicating it in embryonic stem cell pluripotency maintenance (8). SUMOylation also regulates the protein levels of tumor suppressors and oncogenes, and UBE2I/Ubc9 dysregulation is thought to contribute to the pathogenesis of human cancers (9).

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