

Recombinant Human SUMO2 Protein, Rhodamine 110 Labeled

Cat. No. SUMO2-05H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

This SUMO2 substrate is C-terminally derivatized with a bis-Glycine-Rhodamine-110 fluorophore. The bis-Gly-Rh110 remains quenched until the amide bond between the C-terminal glycine and the rhodamine compound is hydrolyzed. The efficiency of quenching combined with the powerful signal upon hydrolysis yields an unparalleled signal-to-background. SUMO2-Rh110 can be used to study the deSUMOylating activity of hydrolases SENP1 And SENP2, among other deSUMOylating enzymes. The substrate activity of SUMO2-Rhodamine110 was determined by measuring the SENP1 catalyzed release of unquenched Gly-Rh-110.

Species Human

Source E.coli

Description

SUMO1 is a Ubiquitin-like protein (UBL) that can be covalently attached to proteins as a monomer or as a lysine-linked polymer. Covalent attachment via an isopeptide bond to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2L, and can be promoted by an E3 ligase such as PIAS1-4, RANBP2, CBX4 or ZNF451. This post-translational modification on lysine residues of proteins plays a crucial role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. This SUMO2 substrate is C-terminally derivatized with a bis-Gly-Rhodamine-110 fluorophore. The bis-Gly-Rh110 is quenched until the amide bond between the C-terminal glycine and the rhodamine compound is hydrolyzed. The efficiency of quenching combined with the powerful signal upon hydrolysis yields an unparalleled

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	signal-to-background.
Conjugation/Label	Rhodamine 110
Molecular Mass	11.03 kDa
Purity	>97% by LCMS
Applications	SUMO2-Rh110 can be used to study the deSUMOylating activity of hydrolases SENP1 and SENP2, among other deSUMOylating enzymes. The substrate activity of SUMO2-Rhodamine110 was determined by measuring the SENP1 catalyzed release of unquenched Gly-Rh-110. The Excitation and Emission of this substrate is 485nm and 535nm respectively.
Notes	For Research Use Only, Not For Use In Humans.
Storage	Store at –80 centigrade after product arrival. Avoid multiple freeze/thaws. It is recommended to make multiple aliquots after the first thaw.
Storage Buffer	50mM Hepes pH 7.5, 100mM NaCl
Concentration	140uM, 1.5 mg/mL
Detection Method	Fluorescence
Substrate Properties	Protein-Based Substrate. Typical experimental concentration 50-500 nM.
Excitation/Emission (nm)	The Excitation and Emission of this substrate is 485nm and 535nm respectively.

GENE INFORMATION

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Gene Name	SUMO2 SMT3 suppressor of mif two 3 homolog 2 (S. cerevisiae) [Homo sapiens]
Official Symbol	SUMO2
Synonyms	SUMO2; SMT3 suppressor of mif two 3 homolog 2 (S. cerevisiae); SMT3 (suppressor of mif two 3, yeast) homolog 2 , SMT3 suppressor of mif two 3 homolog 2 (yeast) , SMT3H2; small ubiquitin-related modifier 2; SMT3B; sentrin 2; SMT3 homolog 2; ubiquitin-like protein SMT3A; ubiquitin-like protein SMT3B; small ubiquitin-like modifier 2; HSMT3; SUMO3; Smt3A; SMT3H2; MGC117191;
Gene ID	6613
mRNA Refseq	NM_001005849
Protein Refseq	NP_001005849
MIM	603042
UniProt ID	P61956