

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human SUZ12 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 448909
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human SUZ12 Thr131-Asn305 Accession # Q15022
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunoprecipitation	4 µg/mL	See Below

DATA

Western Blot

Detection of Human SUZ12 by Western Blot. Western blot shows lysates of JEG-3 human epithelial choriocarcinoma cell line. Gels were loaded with 40 µg of cytoplasmic (Cyto) and 20 µg of nuclear (Nuc) extracts. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse SUZ12 Monoclonal Antibody (Catalog # MAB4184) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for SUZ12 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry

SUZ12 in D3 Mouse Cell Line. SUZ12 was detected in immersion fixed D3 mouse embryonic stem cell line using Mouse Anti-Human/Mouse SUZ12 Monoclonal Antibody (Catalog # MAB4184) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

Immunoprecipitation

Immunoprecipitation of Human SUZ12. SUZ12 was immunoprecipitated from 400 µg of HeLa human cervical epithelial carcinoma cell line lysates using 4 µg of Mouse Anti-Human/Mouse SUZ12 Monoclonal Antibody (Catalog # MAB4184) coated on 4 wells of a 96 well plate (Corning Costar EIA/RIA). HeLa lysates or control buffer were added to the wells and incubated for 2 hours at room temperature. Immunoprecipitated SUZ12 was detected by Western blot under reducing conditions using 0.1 µg/mL Sheep Anti-Human SUZ12 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4184) and Immunoblot Buffer Group 1. View our [recommended buffer recipes for Immunoprecipitation](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

SUZ12 (suppressor of zeste 12; also known as Joined to JazF1) is a 90-95 kDa member of the Polycomb group of transcriptional regulators. It is part of a transcription repression complex termed PRC2 (Polycomb repressive complex 2) that methylates histones in the nucleus, resulting in homeotic (pattern-inducing) gene silencing. Human SUZ12 is 739 amino acids (aa) in length. It contains one C2H2-type zinc finger region (aa 44-8471) and a C-terminal VEFS-box (aa 563-639). There is one potential splice form that shows a deletion of 51 aa over aa 129-197. Human SUZ12 shares 90% and 99% aa identity with mouse and dog SUZ12, respectively. Over the immunogen sequence in MAB4184, aa identity between human and mouse is 99%.