**BACKGROUND**

The mammalian Run-related transcription factor (RUNX) family comprises three members, RUNX1 (also designated AML-1, PEBP2αA, CBFA2), RUNX2 (also designated AML-3, PEBP2αB, CBFA3), and RUNX3 (also designated AML-2, PEBP2αC, CBFA3), and belongs to the acute myeloid leukemia (AML) family. RUNX family members are DNA-binding proteins that regulate the expression of genes involved in cellular differentiation and cell cycle progression. RUNX3 is expressed in cells of hematopoietic origin, including myeloid and B cell lines and spleen. By playing a role in controlling the growth and differentiation of gastric epithelial cells, RUNX3 is a strong candidate as a gastric cancer tumor suppressor. Specifically, hypermethylation inactivates the gene encoding RUNX3. The detection of hypermethylation at multiple regions within the RUNX3 CpG island may aid in the diagnosis and risk assessment of gastric cancer.

**CHROMOSOMAL LOCATION**

Genetic locus: RUNX3 (human) mapping to 1p36.11.

**SOURCE**

RUNX3 (R3-5G4) is a mouse monoclonal antibody raised against amino acids 191-300 of recombinant RUNX3 of human origin.

**PRODUCT**

Each vial contains 200 μg IgGk kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RUNX3 (R3-5G4) is available conjugated to agarose (sc-101553 AC), 500 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101553 PE), fluorescein (sc-101553 FITC), Alexa Fluor® 488 (sc-101553 AF488), Alexa Fluor® 546 (sc-101553 AF546), Alexa Fluor® 594 (sc-101553 AF594) or Alexa Fluor® 647 (sc-101553 AF647), 200 μg/ml, for WB, IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101553 AF680) or Alexa Fluor® 790 (sc-101553 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

RUNX3 (R3-5G4) is recommended for detection of RUNX3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1:2 μg per 100-500 μg of total protein [1 ml of cell lysate]), immunofluorescence (starting dilution 1:50, dilution range 1:500-1:500) and immunohistochemistry (including paraffin-embbeded sections) (starting dilution 1:50, dilution range 1:500-1:500).

Suitable for use as control antibody for RUNX3 siRNA (h): sc-37679, RUNX3 shRNA Plasmid (h): sc-37679-SH and RUNX3 shRNA (h) Lentiviral Particles: sc-37679-V.

Molecular Weight of RUNX3 full length isoforms: 48/46 kDa.

Positive Controls: MEG-01 nuclear extract: sc-2150 or U266 whole cell lysate: sc-364800.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.