BACKGROUND
The mammalian Runt-related transcription factor (RUNX) family comprises three members, RUNX1 (also designated AML-1, PEBP2αB, CBFA2), RUNX2 (also designated AML-3, PEBP2αA, CBFA1, Osf2) 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 IgGκ κappa 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/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101553 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-101553 PE), fluorescein (sc-101553 FITC), Alexa Fluor® 488 (sc-101553 AF488) or Alexa Fluor® 647 (sc-101553 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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

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)), fluorochrome (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:

DATA

SELECT PRODUCT CITATIONS

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

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.