

**RUNX3 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1757a****Specification****RUNX3 Antibody - Product Information**

Application	E, WB, FC, IHC
Primary Accession	<a href="#">Q13761</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	44.4kDa KDa

**Description**

This gene encodes a member of the runt domain-containing family of transcription factors. A heterodimer of this protein and a beta subunit forms a complex that binds to the core DNA sequence 5'-PYGPYGGT-3' found in a number of enhancers and promoters, and can either activate or suppress transcription. It also interacts with other transcription factors. It functions as a tumor suppressor, and the gene is frequently deleted or transcriptionally silenced in cancer. Multiple transcript variants encoding different isoforms have been found for this gene.

**Immunogen**

Purified recombinant fragment of human RUNX3 (AA:186-252) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**RUNX3 Antibody - Additional Information****Gene ID 864****Other Names**

Runt-related transcription factor 3, Acute myeloid leukemia 2 protein, Core-binding factor subunit alpha-3, CBF-alpha-3, Oncogene AML-2, Polyomavirus enhancer-binding protein 2 alpha C subunit, PEA2-alpha C, PEBP2-alpha C, SL3-3 enhancer factor 1 alpha C subunit, SL3/AKV core-binding factor alpha C subunit, RUNX3, AML2, CBFA3, PEBP2A3

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
FC~~1/200 - 1/400  
IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

RUNX3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **RUNX3 Antibody - Protein Information**

**Name** RUNX3

**Synonyms** AML2, CBFA3, PEBP2A3

### **Function**

Forms the heterodimeric complex core-binding factor (CBF) with CBFB. RUNX members modulate the transcription of their target genes through recognizing the core consensus binding sequence 5'- TGTGGT-3', or very rarely, 5'-TGCGGT-3', within their regulatory regions via their runt domain, while CBFB is a non-DNA-binding regulatory subunit that allosterically enhances the sequence-specific DNA-binding capacity of RUNX. The heterodimers bind to the core site of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, LCK, IL3 and GM-CSF promoters (By similarity). May be involved in the control of cellular proliferation and/or differentiation. In association with ZFHX3, up- regulates CDKN1A promoter activity following TGF-beta stimulation (PubMed:<a href="http://www.uniprot.org/citations/20599712" target="\_blank">20599712</a>). CBF complexes repress ZBTB7B transcription factor during cytotoxic (CD8+) T cell development. They bind to RUNX-binding sequence within the ZBTB7B locus acting as transcriptional silencer and allowing for cytotoxic T cell differentiation. CBF complexes binding to the transcriptional silencer is essential for recruitment of nuclear protein complexes that catalyze epigenetic modifications to establish epigenetic ZBTB7B silencing (By similarity).

### **Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00399, ECO:0000269|PubMed:20100835, ECO:0000269|PubMed:20599712}. Cytoplasm. Note=The tyrosine phosphorylated form localizes to the cytoplasm. Translocates from the cytoplasm to the nucleus following TGF-beta stimulation

### **Tissue Location**

Expressed in gastric cancer tissues (at protein level).

## **RUNX3 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

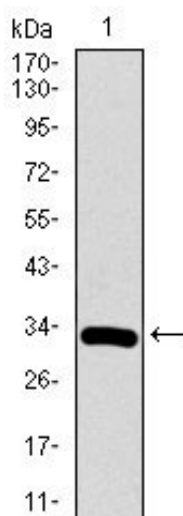
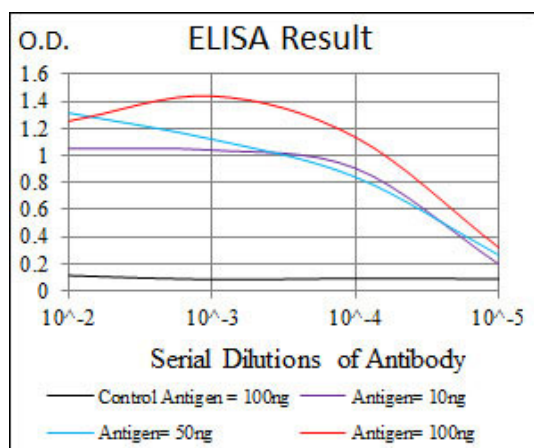


Figure 1: Western blot analysis using RUNX3 mAb against human RUNX3 recombinant protein. (Expected MW is 33 kDa)

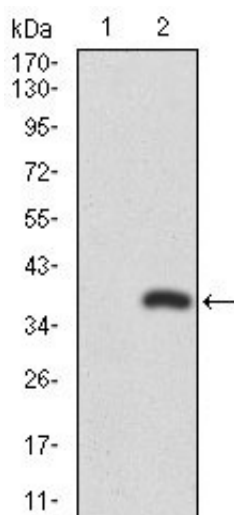


Figure 2: Western blot analysis using RUNX3 mAb against HEK293 (1) and RUNX3 (AA: 186-252)-hlgGfc transfected HEK293 (2) cell lysate.

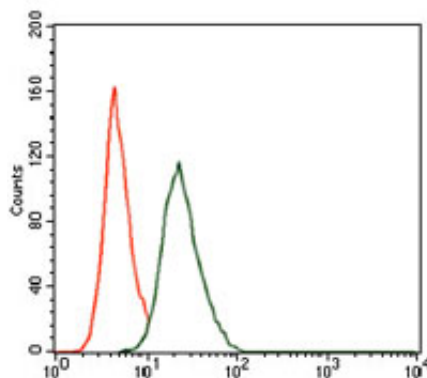


Figure 4: Flow cytometric analysis of NIH3T3 cells using RUNX3 mouse mAb (green) and negative control (red).

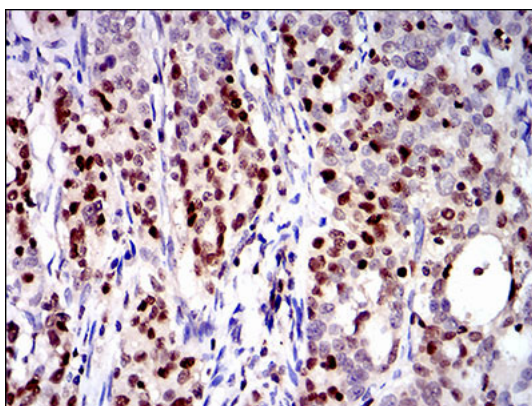


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using RUNX3 mouse mAb with DAB staining.

#### **RUNX3 Antibody - References**

1. J Cancer Res Clin Oncol. 2011 Dec;137(12):1823-30.
2. Oncogene. 2012 Jan 26;31(4):527-34.