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RUNX3
Purified Mouse Monoclonal Antibody
Catalog # AO2536a

Specification

RUNX3 - Product Information

Application	**E, WB, ICC, IHC**
Primary Accession	Q13761
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG2b**
Calculated MW	**44.4kDa KDa**

Immunogen
Purified recombinant fragment of human RUNX3 (AA: 294-429) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

RUNX3 - Additional Information

Gene ID 864

Other Names
AML2; CBFA3; PEBP2aC

Dilution
E~~ 1/10000
WB~~ 1/500 - 1/2000
ICC~~ 1/50 - 1/250
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 is for research use only and not for use in diagnostic or therapeutic procedures.

RUNX3 - 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:20599712). 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 - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RUNX3 - Images

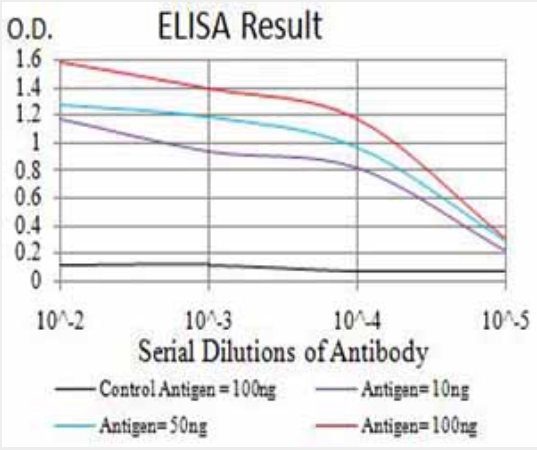

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

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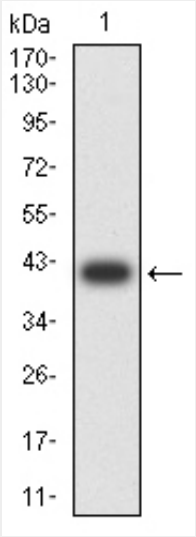

Figure 2:Western blot analysis using RUNX3 mAb against human RUNX3 (AA: 294-429) recombinant protein. (Expected MW is 40 kDa)

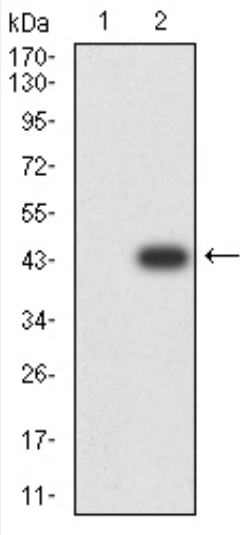

Figure 3:Western blot analysis using RUNX3 mAb against HEK293 (1) and RUNX3 (AA: 294-429)-hIgGFc transfected HEK293 (2) cell lysate.

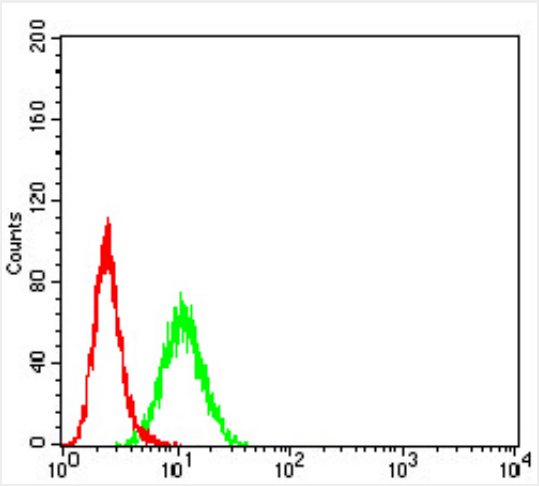

Figure 5:Flow cytometric analysis of Hela cells using RUNX3 mouse mAb (green) and negative

control (red).

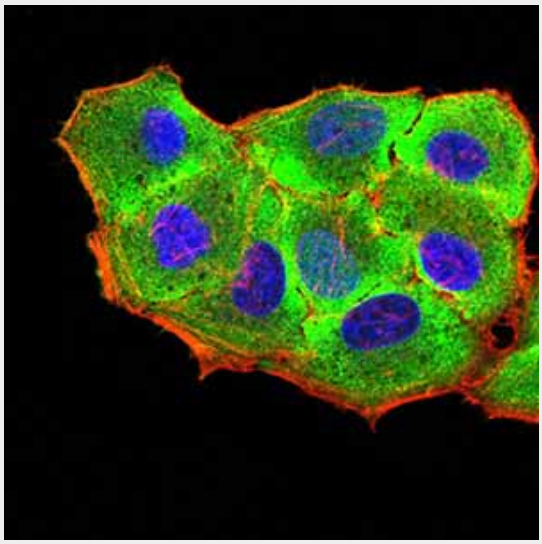

Figure 4:Immunofluorescence analysis of Hela cells using RUNX3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

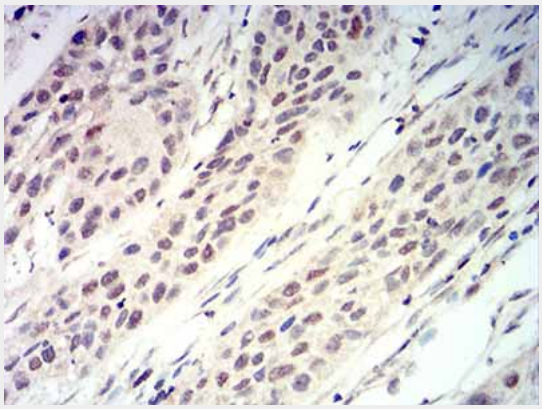

Figure 6:Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using RUNX3 mouse mAb with DAB staining.

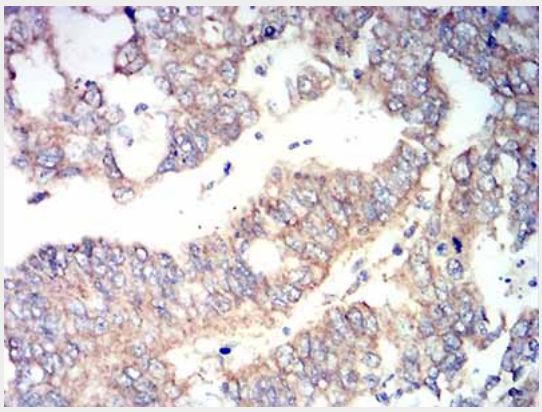

Figure 7:Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using RUNX3 mouse mAb with DAB staining.

RUNX3 - References

1.Genet Mol Res. 2015 Dec 1;14(4):15505-10.2.J Pathol. 2015 Dec;237(4):520-31.