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RUNX3

Purified Mouse Monoclonal Antibody
Catalog # AO2536a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q13761
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7E2B8
Isotype	Mouse IgG2b
Calculated MW	44356
Immunogen	Purified recombinant fragment of human RUNX3 (AA: 294-429) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	864
Other Names	AML2; CBFA3; PEBP2aC
Dilution	WB~~ 1/500 - 1/2000 IHC~~ 1/200 - 1/1000 ICC~~ 1/50 - 1/250 E~~ 1/10000
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.

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). Necessary for the development and survival of sensory neurons expressing parvalbumin (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).

References

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

Images

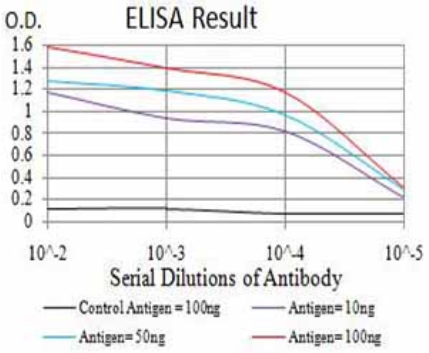


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

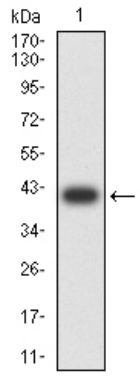
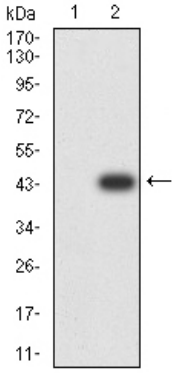


Figure 2:Western blot analysis using RUNX3 mAb against human RUNX3 (AA: 294-429) recombinant protein. (Expected MW is 40 kDa)

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



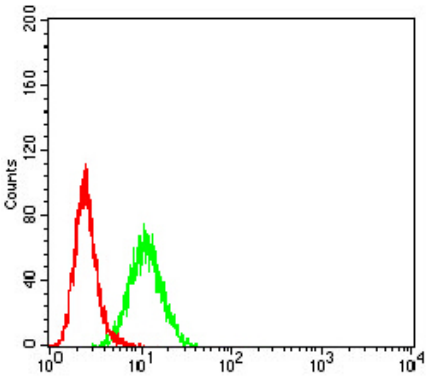


Figure 5:Flow cytometric analysis of Hela cells using RUNX3 mouse mAb (green) and negative control (red).

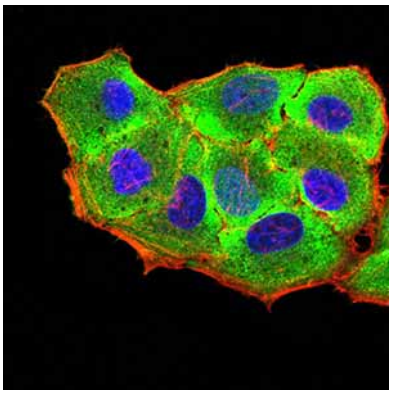


Figure 4:Immunofluorescence analysis of Hela cells using RUNX3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

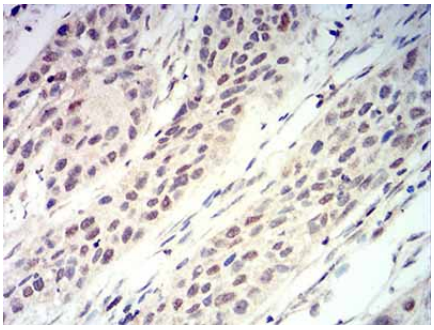


Figure 6:Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using RUNX3 mouse mAb with DAB staining.

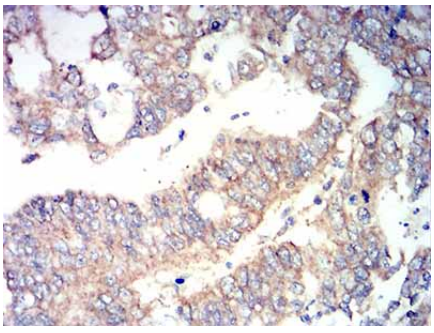


Figure 7:Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using RUNX3 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.