ARG42689
anti-RUNX3 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes RUNX3
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	RUNX3
Species	Human
Immunogen	Recombinant protein corresponding to M128-Y270 of Human RUNX3.
Conjugation	Un-conjugated
Alternate Names	Runt-related transcription factor 3; AML2; Polyomavirus enhancer-binding protein 2 alpha C subunit; CBFA3; SL3/AKV core-binding factor alpha C subunit; Oncogene AML-2; SL3-3 enhancer factor 1 alpha C subunit; PEBP2aC; Core-binding factor subunit alpha-3; CBF-alpha-3; PEA2-alpha C; PEBP2-alpha C; Acute myeloid leukemia 2 protein

Application Instructions

Application table

Application	Dilution
FACS	1:150 - 1:500
ICC/IF	1:200 - 1:1000
IHC-P	1:200 - 1:1000
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	A431 and U2OS
Observed Size	~ 44 kDa

Properties

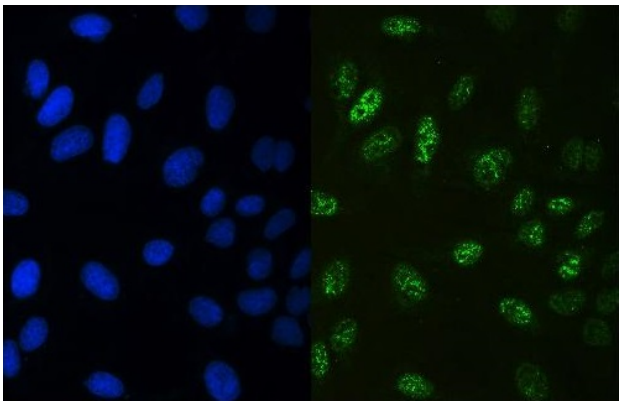
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA

Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

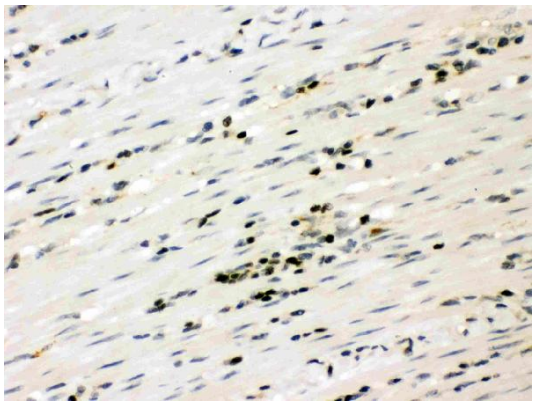
Gene Symbol	RUNX3
Gene Full Name	runt-related transcription factor 3
Background	This gene encodes a member of the runt domain-containing family of transcription factors. A heterodimer of this protein and a beta subunit forms a complex that binds to the core DNA sequence 5'-PYGPYGGT-3' found in a number 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]
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, upregulates 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). [UniProt]
Calculated Mw	44 kDa
PTM	Phosphorylated on tyrosine residues by SRC. Phosphorylated by LCK and FYN. [UniProt]
Cellular Localization	Nucleus. Cytoplasm. Note=The tyrosine phosphorylated form localizes to the cytoplasm. Translocates from the cytoplasm to the nucleus following TGF-beta stimulation. [UniProt]

Images



ARG42689 anti-RUNX3 antibody ICC/IF image

Immunofluorescence: U2OS cells were blocked with 10% goat serum and then stained with ARG42689 anti-RUNX3 antibody (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.

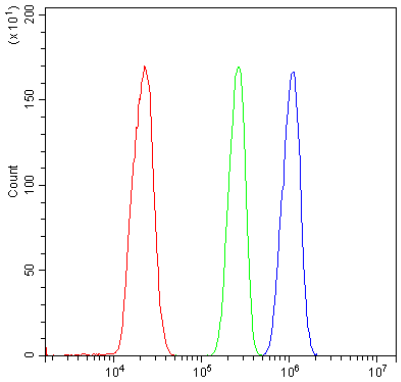


ARG42689 anti-RUNX3 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human intestinal cancer tissue stained with ARG42689 anti-RUNX3 antibody.

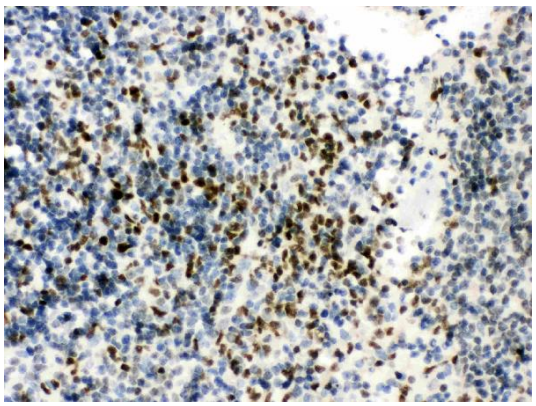
ARG42689 anti-RUNX3 antibody WB image

Western blot: 40 µg of A431 and U2OS whole cell lysates stained with ARG42689 anti-RUNX3 antibody at 0.5 µg/ml dilution.



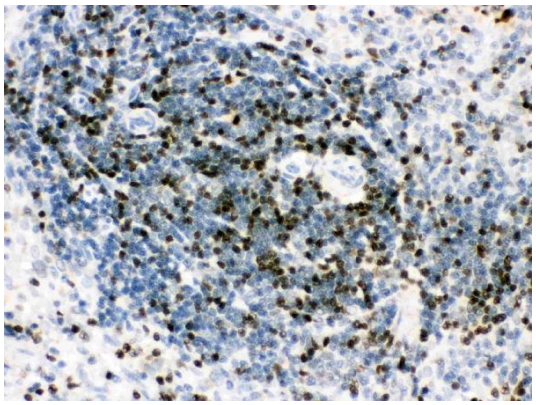
ARG42689 anti-RUNX3 antibody FACS image

Flow Cytometry: THP-1 cells were blocked with 10% normal goat serum and then stained with ARG42689 anti-RUNX3 antibody (blue) at 1 µg/10^6 cells for 30 min at 20°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10^6 cells) used under the same conditions. Unlabelled sample (red) was also used as a control.



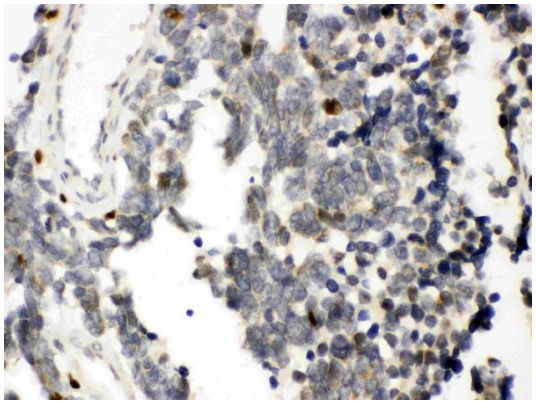
ARG42689 anti-RUNX3 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse spleen tissue stained with ARG42689 anti-RUNX3 antibody.



ARG42689 anti-RUNX3 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat spleen tissue stained with ARG42689 anti-RUNX3 antibody.



ARG42689 anti-RUNX3 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human lung cancer tissue stained with ARG42689 anti-RUNX3 antibody.