Datasheet for ABIN2689899

anti-RUNX3 antibody

6 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	RUNX3
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This RUNX3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Intracellular Staining (ICS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human RUNX3 Recombinant Protein
Clone:	R3
Isotype:	IgG1 kappa
Characteristics:	The R3-5G4 monoclonal antibody specifically binds to Runt-related transcription factor 3 (RUNX3) which is also known as Acute myeloid leukemia 2 protein (AML2), Core-binding factor subunit alpha-3 (CBFA3), and Polyomavirus enhancer-binding protein 2 alpha C subunit (PEBP2aC). RUNX3 is a member of the RUNX transcription factor family which includes RUNX1-3. RUNX3 is a key regulator of gene expression related to the development and differentiation of cells within the nervous and immune systems. In the immune system, RUNX3 is particularly involved in the commitment of CD8+ T cells in the thymus. RUNX3 is highly

Product Details

	expressed and essential for the cytotoxic functions of NK cells, peripheral CD8+T cells and CD4+CD8αα intraepithelial lymphocytes in the gut. RUNX3 also plays a role in the differentiation and effector functions of Th1 cells. RUNX3 is activated downstream of the TGF-β signaling pathway and can play a role in tumor suppression. Aberrant expression of RUNX3 has been associated with tumorigenesis including the development of gastric and other cancers. Western blot and Immunohistochemical analyses of RUNX3 expression. Left Panel: Western blot analysis of RUNX3 expression in Jurkat cell lysate. Lysate was prepared from cells of the human Jurkat (Acut T cell leukemia, ATCC TIB-152) cell line. Cell lysate proteins were resolved by electrophoresis (SDS-PAGE) in a 4-20 % Tris-Glycine polyacrylamide gel, transferred to PVDF membranes and then probed with 1 µg/mL of Purified Anti-RUNX3 antibody (Cat. No. 564813) followed by HRP-conjugated Goat Anti-Mouse IgG (Cat. No. 554002), and ECL Western blot detection reagents. RUNX3 was identified as protein bands of approximately 40 to 50 kDa. Right Panel: Immunohistochemical staining of RUNX3 expressed in human tonsillar cells. Following antigen retrieval with BD Retrievagen A Buffer (Cat. No. 550524), the formalin-fixed paraffin-embedded tonsil sections were stained with either Purified Mouse IgG1 κ Isotype Control (Cat. No. 550878, Left Image) or Purified Mouse Anti-RUNX3 antibody (Cat. No.564813, Right Image). A three-step staining procedure that employs a Biotin Goat Anti-Mouse Immunoglobulin (Cat. No. 550337), Streptavidin-Horseradish Peroxidase (HRP) (Cat. No.550946), and the DAB Substrate Kit (Cat. No. 550880) was used to develop the primary staining reagents. As shown in the Right Image, the RUNX3-specific antibody primarily stained the nuclei of some tonsillar lymphocytes. Original magnification: 40x. BD Pharmingen™ Purified Mouse Anti-RUNX3 - Purified - Clone R3-5G4 - Isotype Mouse IgG1, κ - Reactivity Hu, Ms - 0.1 mg
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	RUNX3
Alternative Name:	RUNX3 (RUNX3 Products)
Background:	Synonyms: AML2, AML-2, CBFA3, PEBP2aC, PEBP2A3
Molecular Weight:	40-50 kDa

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Chuang, Ito, Ito: "RUNX family: Regulation and diversification of roles through interacting proteins." in: **International journal of cancer. Journal international du cancer**, Vol. 132, Issue 6, pp. 1260-71, (2013) (PubMed).

Lotem, Levanon, Negreanu, Leshkowitz, Friedlander, Groner: "Runx3-mediated transcriptional program in cytotoxic lymphocytes." in: **PLoS ONE**, Vol. 8, Issue 11, pp. e80467, (2013) (PubMed).

Reis, Rogoz, Costa-Pinto, Taniuchi, Mucida: "Mutual expression of the transcription factors Runx3 and ThPOK regulates intestinal CD4 T cell immunity." in: **Nature immunology**, Vol. 14, Issue 3, pp. 271-80, (2013) (PubMed).

Djuretic, Cruz-Guilloty, Rao: "Regulation of gene expression in peripheral T cells by Runx transcription factors." in: **Advances in immunology**, Vol. 104, pp. 1-23, (2010) (PubMed).

Setoguchi, Tachibana, Naoe, Muroi, Akiyama, Tezuka, Okuda, Taniuchi: "Repression of the transcription factor Th-POK by Runx complexes in cytotoxic T cell development." in: **Science (New York, N.Y.)**, Vol. 319, Issue 5864, pp. 822-5, (2008) (PubMed).

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