

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TGIF1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 790707
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human TGIF1 Lys245-Ser359 Accession # Q15583
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Simple Western	1 µg/mL	See Below

DATA

Western Blot

Detection of Human TGIF1 by Western Blot. Western blot shows lysates of HCT-116 human colorectal carcinoma cell line, JAR human choriocarcinoma cell line, and A549 human lung carcinoma cell line. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human TGIF1 Monoclonal Antibody (Catalog # MAB7555) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for TGIF1 at approximately 32-35 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human TGIF1 by Simple Western™. Simple Western lane view shows lysates of HCT-116 human colorectal carcinoma cell line, loaded at 0.5 mg/mL. A specific band was detected for TGIF1 at approximately 38 kDa (as indicated) using 1 µg/mL of Mouse Anti-Human TGIF1 Monoclonal Antibody (Catalog # MAB7555). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TGIF1 (5'-TG[TCA]-3' Interacting Protein 1; also Transforming growth factor beta-induced factor and HPE4) is a 43 kDa (predicted) member of the TALE/TGIF homeobox family of proteins. It is widely expressed, and serves as a transcriptional corepressor for SMAD2-induced gene activation. Evidence suggests that it either complexes with c-jun and cPML, or interacts with HDAC in the nucleus to perform this function. It also binds to RXR response elements, blocking RXR-mediated gene activation. Such interactions are of considerable importance during fetal and neonatal development. Human TGIF1 is 401 amino acids (aa) in length. It contains a DNA-binding homeobox domain (aa 164-226) and two consecutive repressor domains (aa 267-401). There are multiple splice variants. One is very well characterized, is 33-35 kDa in size, and shows a four aa substitution for aa 1-133. This is most active when phosphorylated, which adds approximately 2-4 kDa to its SDS-PAGE MW. Two other splice forms contain a 19 aa substitution for aa 1-134, and utilize an alternative start site at Met150, respectively. Over aa 245-359, human TGIF1 shares 81% aa identity with mouse TGIF1.