

DESCRIPTION

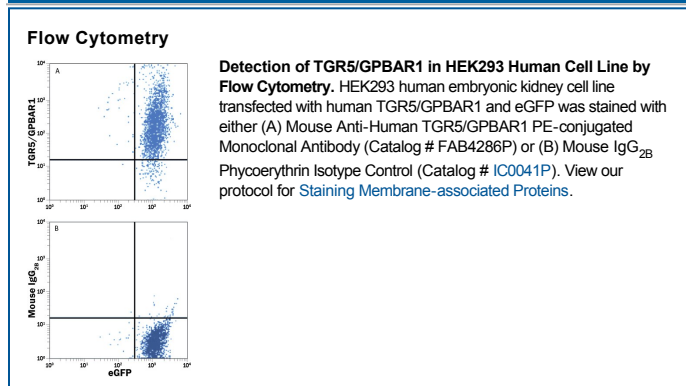
Species Reactivity	Human
Specificity	Stains human TGR5/GPBAR1 transfectants but not irrelevant transfectants in flow cytometry.
Source	Monoclonal Mouse IgG _{2B} Clone # 409522
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human TGR5/GPBAR1 Met1-Asn330 Accession # Q8TDU6
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

TGR5, also known as GPR131, GPBAR1, M-BAR, and BG37, is a 46-48 kDa member of the GPCR1 family of molecules. It is a 330 amino acid (aa) 7-transmembrane glycoprotein that is found on a wide variety of cell types. These include monocytes, macrophages, Kupffer cells, skeletal muscle and pancreatic acinar cells, autonomic enteric and sensory DRG neurons, liver sinusoidal endothelial cells, intestinal L and EC (enterochromaffin) cells, gallbladder epithelium and cholangiocytes (bile duct epithelium). Notably, TGR5 expression exhibits polarity with respect to plasma membrane location, and it may appear either on the cell surface or in intracellular membrane compartments such as the ER, nucleus or multivesicular bodies. Initially considered to be coupled to G α s with cAMP production, it is now known to also interact with G α i, activating the ERK signaling pathway. Bile acids generated from cholesterol in hepatocytes are a known ligand for TGR5. Aside from their role in fatty acid absorption, BA ligation of macrophage/Kupffer cell TGR5 results in an anti-inflammatory environment. Over the aa that constitute the TGR5 extracellular domain, human and mouse share 73% aa sequence identity; over the entire ORF, human and mouse share 83% aa sequence identity.