10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Anti-GPBAR1 / TGR5 Antibody (Cytoplasmic Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17509

## Product Information

| | |
|---|---|
| **Application** | IHC-P |
| **Primary Accession** | Q8TDU6 |
| **Predicted** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 35248 |
| **Concentration (mg/ml)** | 0.87 mg/ml |

## Additional Information

| | |
|---|---|
| **Gene ID** | 151306 |
| **Alias Symbol** | GPBAR1 |
| **Other Names** | GPBAR1, BG37, GPR131, HGPCR19, M-BAR, GPCR19, TGR5, GPCR TGR5, HBG37, Membrane bile acid receptor |
| **Target/Specificity** | Human TGR5. BLAST analysis of the peptide immunogen showed no homology with other human proteins. |
| **Reconstitution & Storage** | Immunoaffinity purified |
| **Precautions** | Anti-GPBAR1 / TGR5 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

| | |
|---|---|
| **Name** | GPBAR1 ( HGNC:19680) |
| **Function** | G protein-coupled receptor for bile acid (PubMed: 12419312, PubMed:12524422, PubMed:32698187, PubMed:32747649, PubMed:35858343). Bile acid-binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed:12419312, PubMed:12524422, PubMed:32698187, PubMed:32747649, PubMed:35858343). GPBAR1 is coupled to G(s) G proteins and mediates activation of adenylate cyclase activity (PubMed:12419312, PubMed:12524422, PubMed:32698187, PubMed:32747649, PubMed:35858343). Activated by bile acids, such as lithocholate, deoxycholate, chenodeoxycholate and cholate, in descending order (PubMed:12524422, PubMed:32698187). Apart from their role in lipid dietary absorption and cholesterol catabolism, bile acids act as an important |

| | |
|---|---|
| | signaling molecule, involved in processes, such as energy expenditure or tissue inflammation (PubMed:26541439). GPBAR1-mediated signaling promotes energy expenditure and adiposity reduction in brown adipose tissue by activating adenylate cyclase, leading to DIO2 activation (By similarity). Involved in bile acid promoted GLP-1 secretion (By similarity). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein |
| **Tissue Location** | Ubiquitously expressed. Expressed at higher level in spleen and placenta. Expressed at lower level in other tissues. In digestive tissues, it is expressed in stomach, duodenum, ileocecum, ileum, jejunum, ascending colon, transverse colon, descending colon, cecum and liver, but not in esophagus and rectum |