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

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1457

Product Information

Application	WB, FC, ICC
Primary Accession	Q96P68
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB4575
Calculated MW	38251
Gene Name	OXGR1
Aliases	OXGR1; Oxoglutarate Receptor 1; P2RY15; P2Y15; Alpha-Ketoglutarate Receptor 1; 2-Oxoglutarate Receptor 1; GPR80; GPR99; AKGR; Oxoglutarate (Alpha-Ketoglutarate) Receptor 1; G Protein-Coupled Receptor 80; G-Protein Coupled Receptor 99; P2Y-Like Nucleotide Receptor; P2Y Purinoceptor 15; P2Y-Like GPCR; Seven Transmembrane Helix Receptor; G-Protein Coupled Receptor 80; CAON2
Immunogen	A synthesized peptide derived from human OXGR1 / GPR99

Additional Information

Gene ID	27199
Other Names	2-oxoglutarate receptor 1, Alpha-ketoglutarate receptor 1, G-protein coupled receptor 80, G-protein coupled receptor 99, P2Y purinoceptor 15, P2Y15, P2Y-like GPCR, P2Y-like nucleotide receptor, OXGR1

Protein Information

Name	OXGR1
Function	G protein-coupled receptor for dicarboxylates and amino dicarboxylates (PubMed:15141213, PubMed:36571463, PubMed:36919698). Receptor for itaconate, a metabolite produced by myeloid lineages (PubMed:36919698). In the respiratory epithelium, couples the binding of itaconate to the activation of GNA11 and downstream intracellular Ca(2+) release, leading to mucocilliary clearance of airborne pathogens (PubMed:36919698). Receptor for leukotriene E4 (LTE4) produced by mast cells upon allergic inflammation. Binds with high affinity to LTE4 and elicits mucin release from pulmonary epithelium in response to airborne fungi allergens. Regulates mucin-producing goblet cell homeostasis (By similarity). Receptor for alpha-ketoglutarate produced by proximal tubule renal cells upon metabolic alkalosis. In an intrarenal paracrine signaling pathway, binds

	alpha-ketoglutarate and drives transepithelial salt reabsorption and bicarbonate secretion by SLC26A4/pendrin-positive intercalated cells (By similarity) (PubMed:15141213).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=Upon itaconate binding, internalizes via endocytosis in a beta-arrestin dependent manner
Tissue Location	Detected in kidney and, to a lower extent, in placenta. Not detected in brain tissues including the frontal cortex, caudate putamen, thalamus, hypothalamus, hippocampus or pons