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

Specification

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q96P68
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 38 kDa , observed, 36 kDa KDa**
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**

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - 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

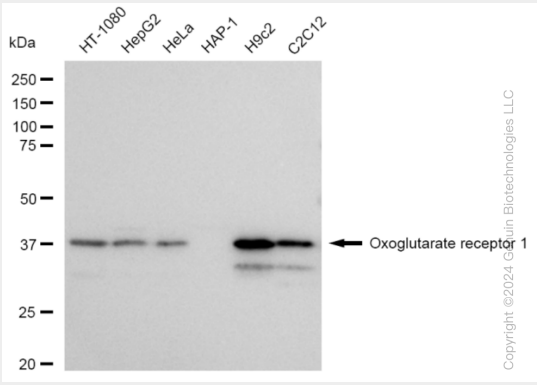
Tissue Location
Detected in kidney and, to a lower extent, in placenta. Not detected in brain tissues including the frontal cortex, caudate putamen, thalamus, hypothalamus, hippocampus or pons

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

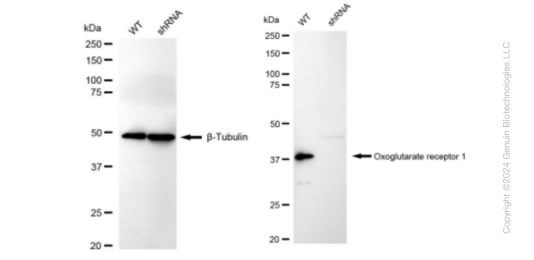
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - Images

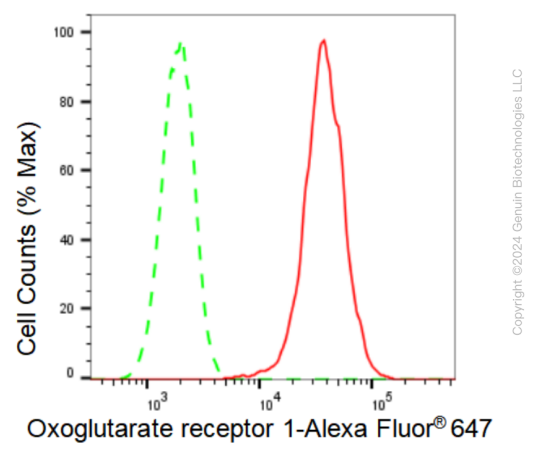


Western blotting analysis using anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

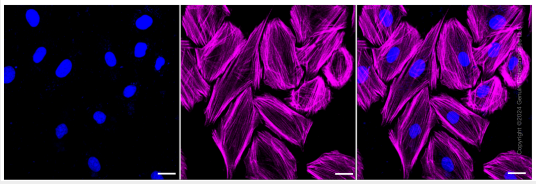
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blotting analysis using anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457). Oxoglutarate receptor 1 expression in wild type (WT) and Oxoglutarate receptor 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Oxoglutarate receptor 1 expression in H9c2 cells using Oxoglutarate receptor 1 antibody (Cat#AGI1457, 1:2,000). Green, isotype control; red, Oxoglutarate receptor 1.



Immunocytochemical staining of H9C2 cells with Oxoglutarate receptor 1 antibody (Cat#AGI1457, 1:1,000). Nuclei were stained blue with DAPI; Oxoglutarate receptor 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.