

**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 | <a href="#">Q96P68</a>                                                                                                                                                                                                                                                                                                                                                                |
| 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                                                                                                                                                                                                   |
| <b>Other Names</b> | 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:<a href="http://www.uniprot.org/citations/15141213" target="\_blank">15141213</a>, PubMed:<a href="http://www.uniprot.org/citations/36571463" target="\_blank">36571463</a>, PubMed:<a href="http://www.uniprot.org/citations/36919698" target="\_blank">36919698</a>). Receptor for itaconate, a metabolite produced by myeloid lineages (PubMed:<a href="http://www.uniprot.org/citations/36919698" target="\_blank">36919698</a>). In the

respiratory epithelium, couples the binding of itaconate to the activation of GNA11 and downstream intracellular  $\text{Ca}^{2+}$  release, leading to mucociliary clearance of airborne pathogens (PubMed: [36919698](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15141213)).

### Cellular Location

Cell membrane; Multi-pass membrane protein. Note=Upon itaconate binding, internalizes via endocytosis in a beta-arrestin dependent manner

### Tissue Location

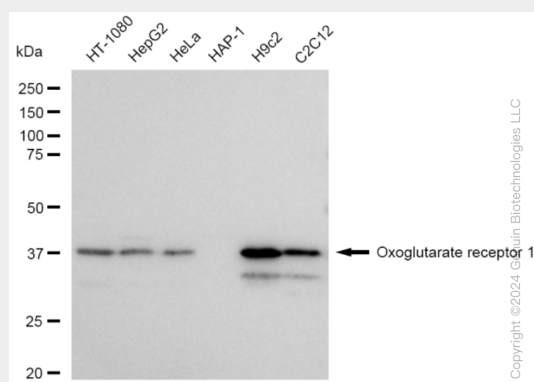
Detected in kidney and, to a lower extent, in placenta. Not detected in brain tissues including the frontal cortex, caudate putamen, thalamus, hypothalamus, hippocampus or pons

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

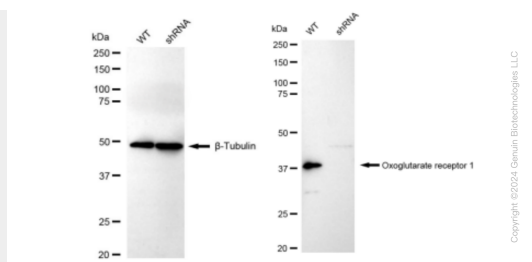
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

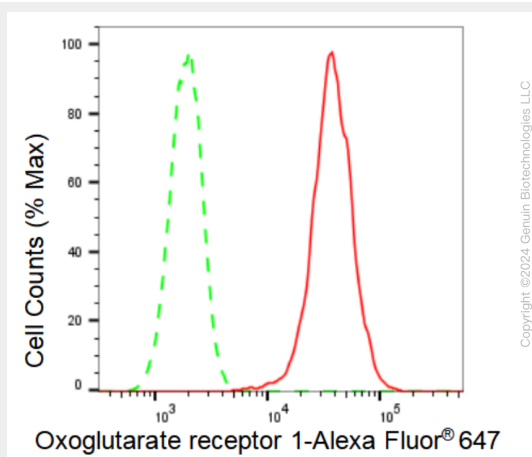
## KD-Validated Anti-Oxoglutarate receptor 1 Rabbit Monoclonal Antibody - Images



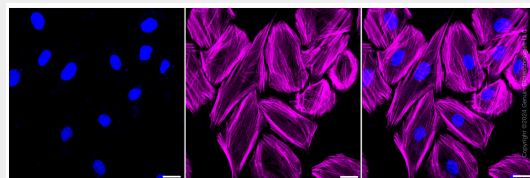
Western blotting analysis using anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457). Total cell lysates (30  $\mu\text{g}$ ) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Oxoglutarate receptor 1 antibody (Cat#AGI1457, 1:5,000) and HRP-conjugated goat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



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.