

# Active Recombinant Mouse PRLR Homodimer Protein, His&Avi tagged

**Cat. No.** Prlr-55M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Mouse PRLR protein dimer contains a PRLR extracellular domain (UniProt# Q08501) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus was expressed in HEK293T.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | HEK293T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>    | 20-229 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>Prolactin receptor (PRLR), also known as PRL-R, is a class 1 cytokine receptor glycoprotein that binds prolactin (PRL). PRLR contains an extracellular domain with a cytokine homology module formed by two fibronectin type III domains, D1 and D2, followed by a transmembrane domain and cytoplasmic domain. PRLR is expressed on cells in mammary glands, pituitary gland, and other tissues. PRLR exists as a monomer and can form dimers. PRLR dimerization is a critical mechanism in PRL signaling, influencing numerous physiological and pathological processes. PRLR pathological dimerization, including constitutive or ligand-independent PRLR dimers sustain abnormal signaling, contributes to cancer, hyperprolactinemia, and immune dysfunction. Dysregulation of PRLR can promote tumor activity and positively regulate the proliferation of malignant cells in breast cancer. PRLR is an attractive therapeutic target for PRLR related diseases including breast cancer, hyperprolactinemia, and metabolic disorders. While structurally and functionally</p> |

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similar to human PRLR, mouse PRLR is a species-specific tool essential for preclinical studies, basic research, and translational research in cancer immunotherapy.

|                       |                                                                                                                                                                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 65 kDa                                                                                                                                                                                                                                                           |
| <b>Purity</b>         | Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition                                                                                                                                                                               |
| <b>Application</b>    | Verified Applications: ELISA for PRLR-specific antibody binding assays. Suggested Applications: ELISA for PRLR and prolactin (PRL) ligand protein binding assays. SPR & BLI for PRLR-specific antibody and PRL protein binding assays. Animal immunization, RUO. |
| <b>Storage</b>        | Store at -80 centigrade.                                                                                                                                                                                                                                         |
| <b>Storage Buffer</b> | 0.22µm filtered PBS, pH 7.4                                                                                                                                                                                                                                      |
| <b>Shipping</b>       | Frozen Dry Ice                                                                                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <b>Prlr prolactin receptor [ Mus musculus (house mouse) ]</b>                                           |
| <b>Official Symbol</b> | <b>Prlr</b>                                                                                             |
| <b>Synonyms</b>        | PRLR; prolactin receptor; PRL-R; prolactin receptor related sequence 1; Pr-1; Pr-3; AI987712; Prlr-rs1; |
| <b>Gene ID</b>         | <b>19116</b>                                                                                            |

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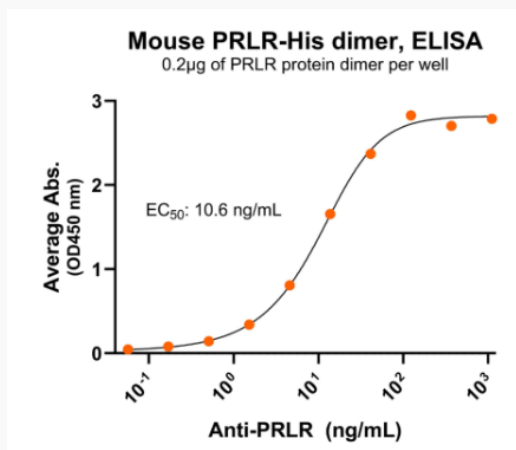
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mRNA Refseq [NM\\_001253781](#)

Protein Refseq [NP\\_001240710](#)

UniProt ID [Q08501](#)

#### Bioactivity-Antibody Binding



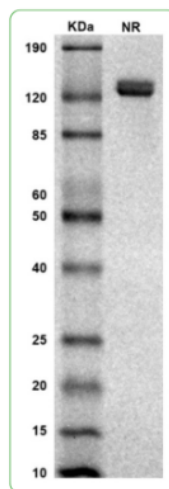
Immobilized mouse PRLR protein dimer, His-tag at 2 µg/mL (100 µL/well) can bind anti-mouse PRLR monoclonal antibody with half maximal effective concentration (EC<sub>50</sub>) range of 5.3-21.2 ng/mL (QC tested).

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## SDS-PAGE and WB



MW: Molecular Weight marker reduced condition NR: PRLR dimer under non-reduced condition

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