

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived mouse APCDD1 protein Ser25-Thr492, with a C-terminal 6-His tag Accession # Q3U128
<b>N-terminal Sequence Analysis</b>	Ser25 & Leu27
<b>Predicted Molecular Mass</b>	54 kDa

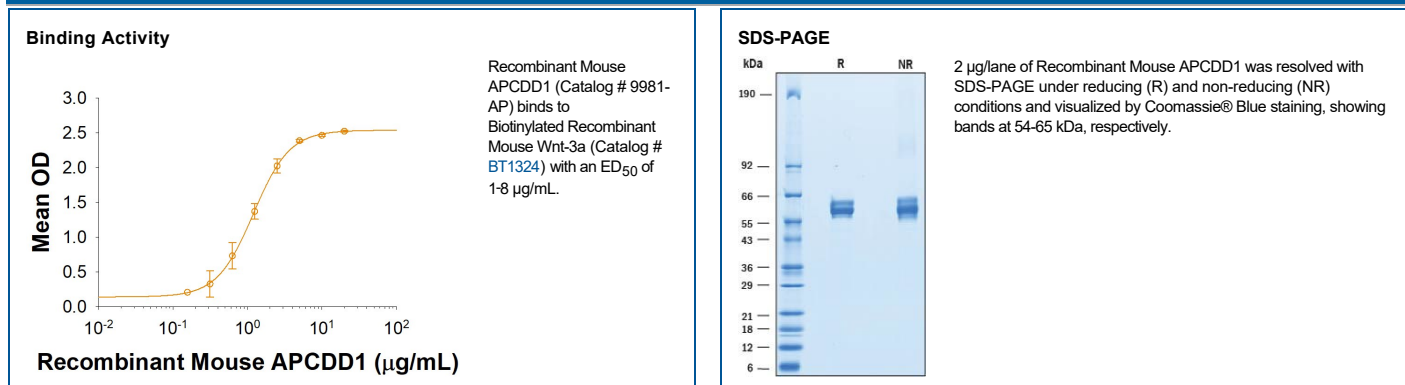
**SPECIFICATIONS**

<b>SDS-PAGE</b>	54-65 kDa, reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. Recombinant Mouse APCDD1 binds Biotinylated Recombinant Mouse Wnt-3a (Catalog # BT1324) . The ED <sub>50</sub> for the binding is 1-8 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<ul style="list-style-type: none"> <li>• 12 months from date of receipt, ≤ -20 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, ≤ -20 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

APCDD1 (Adenomatosis Polyposis Coli Down-Regulated 1) is a membrane bound glycoprotein that is an endogenous inhibitor of the Wnt signaling pathway (1, 2). Inhibition of Wnt signaling by APCDD1 plays a role in adipocyte differentiation as well as pathogenesis of disease (2-4). Mature mouse APCDD1 consists of a 466 amino acid (aa) extracellular domain (ECD) , a 21 aa transmembrane domain, and a 1 aa cytoplasmic region. Mouse APCDD1 shares a 98% and 94% amino acid sequence similarity with rat and human respectively. APCDD1 interacts in vitro with Wnt3A and LRP5 (5). It is expressed in a broad repertoire of cell types which might regulate a diversity of biological processes controlled by Wnt signaling, including breast cancer cell invasion (6), osteogenic differentiation of human dental follicle cells (7), vascular remodeling and barrier maturation of retinal blood vessels (4) and hair follicle miniaturization (5). Extracellular domain of APCDD1 has been shown to co-precipitate with recombinant Wnt3A and LRP5 (1), suggesting that APCDD1 can modulate the Wnt pathway by potential interactions with Wnt3a and LRP5 at the cell surface.

**References:**

1. Mazzoni, J. *et al.* (2017) *Neuron* **96**:1055.
2. Yiew, N.K.H. *et al.* (2017) *J. Biol. Chem.* **292**:6312.
3. Shimomura, Y. (2010) *Nature* **464**:1043.
4. Kandimalla, R. (2017) *Oncogenesis* **6**:e308.
5. Yutaka Shimomura, *et al.* (2010) *Nature* **464**:1043.
6. Sung-Gook CHO, (2017) *Oncology Letters* **14**:4845.
7. Viale-Bouroncle S. *et al.* (2015) *Biochem Biophys Res Commun* **457**(3):314.