

Catalog Number: 10170-R015

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General Information	
<b>Immunogen:</b>	Recombinant Human DKK-1 Protein (Catalog#10170-H08H)
<b>Clone ID:</b>	R015
<b>Ig Type:</b>	Rabbit IgG
<b>Applications:</b>	Neutralization
<b>Specificity:</b>	Human DKK-1
<b>Formulation:</b>	0.2 µm filtered solution in Histidine and Arginine buffer containing 120mM NaCl, 0.02% Tween 80, pH6.0
<b>Storage:</b>	< -20°C

## Preparation

This antibody was obtained from a rabbit immunized with purified, recombinant Human DKK-1 (rh DKK-1; Catalog#10170-H08H; NP\_036374.1; Met2-His266) and was produced using recombinant antibody technology.

## Specificity

Human DKK-1  
**Has cross-reactivity** with Rhesus DKK-1 / Dkk1 (Catalog#11089-K08H) in ELISA assay

## Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.** Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

## Applications

**Neutralization** – The neutralization activity of antibody is Measured by its ability to inhibit Wnt3a-induced alkaline phosphatase production by C3H10T1/2 cells. The Neutralization titer (IC50) is typically 0.1-0.4 µg/mL in the presence of 40 ng/mL Mouse Wnt-3a and 10 µg/mL DKK1 (Catalog#10170-H08H).

## Background

Dickkopf (DKK) family proteins, consisting of DKK-1, DKK-2, DKK-3 and DKK-4, function as secreted Wnt antagonists by inhibiting Wnt coreceptors LRP5/6. DKK-1, DKK-2, and DKK-4 also bind cell surface Kremen-1 or Kremen-2 and promote the internalization of LRP5/6. Dickkopf related protein 1 (DKK-1) was initially identified as an inducer of head formation in *Xenopus* embryos. DKK-1 protein modulates Wnt signaling pathway during embryonic development. Increased levels of DKK-1 are found in the majority of lung cancers, esophageal squamous cell carcinomas, and hormone-resistant breast cancers, while DKK-1 expression is decreased in malignant melanoma and colorectal cancers.

## Reference

Horwitz EM. (2004) Dkk-1-mediated expansion of adult stem cells. *Trends Biotechnol.* 22 (8): 386-8.  
Jiang T, *et al.* (2009) Clinical significance of serum DKK-1 in patients with gynecological cancer. *Int J Gynecol Cancer.* 19 (7): 1177-81.

Character	Method	Result
<b>Specificity</b>	ELISA	Human DKK-1 (Catalog#10170-H08H)
<b>Antibody concentration</b>	UV	> 1 mg/mL
<b>Aggregation</b>	SEC-HPLC	< 5% aggregation
<b>Purity</b>	SDS-PAGE	> 95%
<b>Endotoxin</b>	LAL gel clotting	< 3 EU/mg