# DKK1 Antibody – Mouse Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | DKK1, Monoclonal Antibody |
| **Full Product Name** | DKK1 (Dickkopf Homolog 1 (Xenopus laevis), DKK-1, SK) (MaxLight 405) |
| **Product Gene Name** | anti-DKK1 antibody |
| **Product Synonym Names** | Dickkopf Homolog 1 (Xenopus laevis); DKK-1; SK |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2b,k |
| **Clone Number** | 3D9 |
| **Host** | Mouse |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405. |
| **Purity/Purification** | Purified |
| **Specificity** | Recognizes DKK1. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximu recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 27.8kDa (253aa) 28-40kDa (SDS-PAGE under reducing conditions) |
| **OMIM** | 605189 |
| **3D Structure** | ModBase 3D Structure for O94907 |
| **Immunogen** | DKK1 (NP_036374, 81aa-180aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD. |
| **Immunogen Sequence** | QPYPCAEDEECGTDEYCASPTRGGDAGVQICLACRKRRKRCMRHAMCCPGNYCKNGICVSSDQNHFRGEIEETITESFGNDHSTLDGYSRRTTLSSKM |
| **Conjugate** | MaxLight405 |
| **Product Categories/Family for anti-DKK1 antibody** | Antibodies; Dickkopf Proteins |
| **Applications Tested/Suitable for anti-DKK1 antibody** | FLISA, Western Blot (WB) |
| **Application Notes for anti-DKK1 antibody** | Applications are based on unconjugated antibody. |
| **Related Product Information for anti-DKK1 antibody** | This gene encodes a protein that is a member of the dickkopf family. It is a secreted protein with two cysteine rich regions and is involved in embryonic development through its inhibition of the WNT signaling pathway. Elevated levels of DKK1 in bone marrow plasma and peripheral blood is associated w the presence of osteolytic bone lesions in patients with multiple myeloma. [provided by RefSeq] |

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| **Other Notes** | Small volumes of anti-DKK1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for DKK1 purchase** | MBS6195214 is an antibody targeting DKK1. Also known as DKK1 (Dickkopf Homolog 1 (Xenopus laevis), DKK-1, SK) (MaxLight 405). Host: Mouse. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DKK1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 7110719 |
| **NCBI GeneID** | 22943 |
| **NCBI Accession #** | NP_036374 |
| **UniProt Primary Accession #** | O94907 |
| **UniProt Secondary Accession #** | B2RC19 |
| **UniProt Related Accession #** | O94907 |
| **GenBank Nucleotide #** | NM_012242.3 |
| **NCBI Official Full Name** | dickkopf-related protein 1 |
| **NCBI Official Synonym Full Names** | dickkopf WNT signaling pathway inhibitor 1 |
| **NCBI Official Symbol** | DKK1 |
| **NCBI Official Synonym Symbols** | SK; DKK-1 |
| **UniProt Protein Name** | Dickkopf-related protein 1 |
| **UniProt Synonym Protein Names** | SK |
| **Protein Family** | Dickkopf-related protein |
| **UniProt Gene Name** | DKK1 |
| **UniProt Synonym Gene Names** | Dickkopf-1; Dkk-1; hDkk-1 |
| **UniProt Entry Name** | DKK1_HUMAN |
| **NCBI Protein Information** | dickkopf-related protein 1 |
| **NCBI Summary for DKK1** | This gene encodes a member of the dickkopf family of proteins. Members of this family are secreted proteins characterized by two cysteine-rich domains that mediate protein-protein interactions. The encoded protein binds to the LRP6 co-receptor and inhibits beta-catenin-dependent Wnt signaling. This gene plays a role in embryonic development and may be important in bone formation in adults. Elevated expression of this gene has been observed in numerous human cancers and this protein may promote proliferation, invasion and growth in cancer cell lines. [provided by RefSeq, Sep 2017] |

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| **UniProt Comments for DKK1** | DKK1: Antagonizes canonical Wnt signaling by inhibiting LRP5/6 interaction with Wnt and by forming a ternary complex with the transmembrane protein KREMEN that promotes internalization of LRP5/6. DKKs play an important role in vertebrate development, where they locally inhibit Wnt regulated processes such as antero- posterior axial patterning, limb development, somitogenesis and eye formation. In the adult, Dkks are implicated in bone formation and bone disease, cancer and Alzheimer disease. Interacts with LRP6. Interacts (via the C-termianl Cys- rich domain) with LRP5 (via beta-propeller regions 3 and 4); the interaction, enhanced by MESD and or KREMEN, antagonizes Wnt- mediated signaling. Placenta. Belongs to the dickkopf family.<br><br>Protein type: Secreted; Secreted, signal peptide; Inhibitor<br><br>Chromosomal Location of Human Ortholog: 10q11.2<br><br>Cellular Component: extracellular space; early endosome membrane; extracellular region; plasma membrane<br><br>Molecular Function: protein binding; receptor antagonist activity; signal transducer activity; growth factor activity; low-density lipoprotein receptor binding<br><br>Biological Process: cellular morphogenesis during differentiation; negative regulation of skeletal muscle development; response to retinoic acid; negative regulation of Wnt receptor signaling pathway; regulation of receptor internalization; negative regulation of peptidyl-serine phosphorylation; negative regulation of transcription from RNA polymerase II promoter; negative regulation of BMP signaling pathway; negative regulation of mesodermal cell fate specification; mesoderm formation; hair follicle development; endoderm formation; forebrain development; regulation of endodermal cell fate specification; negative regulation of protein complex assembly; embryonic limb morphogenesis |
| **Research Articles on DKK1** | **1.** Sclerostin But Not Dickkopf-1 has roles in increasing prevalence of osteoporotic fracture and lower bone mineral density in postmenopausal Korean women |
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