



20150116ML

# Anti-Human DAN (#7P12)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

|                  |                            |
|------------------|----------------------------|
| <b>Cat.-no.:</b> | <b>101-M374</b>            |
| Size:            | 100 µg                     |
| Lot. No.:        | According to product label |

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with human recombinant DAN.

## Target Background

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>Synonyms (Target):</b> | NBL1; NB; DAN; NO3; DAND1; D1S1733E |
|---------------------------|-------------------------------------|

DAN (differential screening-selected gene aberrative in neuroblastoma) was initially identified as a gene whose expression is downregulated in src-transformed rat fibroblasts. Human DAN was isolated from a normal lung cDNA library using mouse DAN as a probe. DAN has now been shown to be a prototypical member of the DAN family of secreted glycoproteins that are putative antagonists for TGFβ superfamily proteins. DAN family members share a cysteine-rich domain that is structurally related to the cysteine-knot motif found in TGFβ superfamily ligands. There are at least five mammalian DAN family members including DAN, Gremlin/DRM, Cer1 (Cerberus-related), Dante and PRDC (protein related to DAN and cerberus). Additional DAN family members include Xenopus Cerberus, chick Caronte and C. elegans CeCan 1. The DAN family of proteins are thought to act as antagonists by binding TGFβ family ligands and preventing their interactions with signaling receptor complexes. Recombinant human DAN preparations have been shown to bind BMP4 in a functional ELISA and to inhibit BMP4 mediated bioactivity in ATDC 5 chondrogenic cells. It is likely the various DAN family members and other TGFβ BMP antagonists including Noggin, Chordin, Follistatin and TSG can selectively antagonize the activities of different subsets of TGFβ superfamily ligands. These antagonists represent one of the many elaborate regulatory mechanisms that have evolved to control the bioactivities of the TGFβ superfamily ligands.

## Database References Target

|                        |             |
|------------------------|-------------|
| <b>Protein RefSeq:</b> | NP_877421.2 |
| <b>Uniprot ID:</b>     | P41271      |
| <b>mRNA RefSeq:</b>    | NM_182744.3 |

## Product Specifications

|                              |                          |
|------------------------------|--------------------------|
| <b>Host</b>                  | Mouse                    |
| <b>Reactivity against</b>    | Human                    |
| <b>Clonality</b>             | Monoclonal Antibody      |
| <b>Clone</b>                 | (#7P12)                  |
| <b>Isotype</b>               | IgG2                     |
| <b>Purification</b>          | Protein G chromatography |
| <b>Antigen</b>               | human recombinant DAN    |
| <b>Formulation</b>           | lyophilized              |
| <b>Reconstitution buffer</b> | PBS (sterile)            |

**Reconstitution:** Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

**Remarks:** This antibody was selected for its ability to detect human DAN.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB

**Recommended usage:**

**WB:** 1:500-1000

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**