

#### DESCRIPTION

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| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                              |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Calcium Activated Nucleotidase 1/CANT1 in direct ELISAs.                                                             |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                               |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                          |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human Calcium Activated Nucleotidase 1/CANT1<br>Gly80-Ile401<br>Accession # Q8WVQ1 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                       |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                    |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

CANT1 (soluble Calcium-Activated Nucleotidase 1; also SCAN-1, Apyrase homolog and NFκB-activating protein 107) is a 45-48 kDa glycoprotein member of the apyrase (ADP/ATP hydrolysing) family of molecules. It is an ER and Golgi-embedded protein that hydrolyzes UDP in a calcium-dependent manner, and appears to be involved in the regulation of protein glycosylation and folding. It is also reported that CANT1 is essential for cell proliferation. CANT1 is not ubiquitous, but is found in multiple cell types, including prostatic epithelium, fibroblasts, lymphocytes and chondrocytes. Human CANT1 is a 401 amino acid (aa) type II transmembrane glycoprotein. It contains a 44 aa N-terminal cytoplasmic region that possesses an ER retention motif (aa 38-42), and a 339 aa luminal domain (aa 63-401). CANT1 is reported to form membrane-bound disulfide-linked homodimers, and potentially form non-covalent homodimers in a soluble (circulating) state. The soluble form is 35-40 kDa in size, and presumably cleaved near the transmembrane segment. However, multiple splice forms are possible, and may account for the lower MWs. Two splice forms impact the extracellular region, one which contains a four aa substitution for aa 219-401, and a second that possesses a 26 aa substitution for aa 220-401. Two additional splice forms utilize alternative start sites at Met 31 and Met165. Over aa 80-401, human CANT1 shares 89% aa sequence identity with mouse CANT1.

#### PRODUCT SPECIFIC NOTICES

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