



Recombinant Protein Technical Manual

Recombinant Human CANT1 Protein (His Tag)

RPES4462

Product Data:

Product SKU: RPES4462

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q8WVQ1

Protein Information:

Molecular Mass: 38 kDa

AP Molecular Mass: 40 kDa

Tag: N-His

Bio-activity:

Purity: > 88 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: DBQD;SCAN;SCAN1;SHAPY

Immunogen Information:

Sequence: Gly 80-Ile 401

Background:

CANT1 (calcium activated nucleotidase 1) belongs to the apyrase family. Apyrase is a calcium-activated plasma membrane-bound enzyme (magnesium can also activate it) (EC 3.6.1.5) that catalyses the hydrolysis of ATP to yield AMP and inorganic phosphate. Two isoenzymes are found in commercial preparations from *S. tuberosum*. One with a higher ratio of substrate selectivity for ATP: ADP and another with no selectivity. It can also act on ADP and other nucleoside triphosphates and diphosphates with the general reaction being $NTP \rightarrow NDP + Pi \rightarrow NMP + 2Pi$. The salivary apyrases of blood-feeding arthropods are nucleotide hydrolysing enzymes are implicated in the inhibition of host platelet aggregation through the hydrolysis of extracellular adenosine diphosphate. CANT1 functions as a calcium-dependent nucleotidase with a preference for UDP. Defects in CANT1 are the cause of desbuquois dysplasia.