

## Product datasheet for **TP761796**

### **RAG2 (NM\_000536) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human recombination activating gene 2 (RAG2), transcript variant 1, full length, with N-terminal GST and C-terminal His tag, expressed in E. coli, 50ug
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	A DNA sequence encoding human full-length RAG2
<b>Tag:</b>	N-GST and C-His
<b>Predicted MW:</b>	87.1 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	50 mM Tris-HCl, pH 8.0, 8 M urea
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_000527</a>
<b>Locus ID:</b>	5897
<b>UniProt ID:</b>	<a href="#">P55895</a>
<b>RefSeq Size:</b>	2457
<b>Cytogenetics:</b>	11p12
<b>RefSeq ORF:</b>	1581
<b>Synonyms:</b>	RAG-2


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**Summary:**

This gene encodes a protein that is involved in the initiation of V(D)J recombination during B and T cell development. This protein forms a complex with the product of the adjacent recombination activating gene 1, and this complex can form double-strand breaks by cleaving DNA at conserved recombination signal sequences. The recombination activating gene 1 component is thought to contain most of the catalytic activity, while the N-terminal of the recombination activating gene 2 component is thought to form a six-bladed propeller in the active core that serves as a binding scaffold for the tight association of the complex with DNA. A C-terminal plant homeodomain finger-like motif in this protein is necessary for interactions with chromatin components, specifically with histone H3 that is trimethylated at lysine 4. Mutations in this gene cause Omenn syndrome, a form of severe combined immunodeficiency associated with autoimmune-like symptoms. [provided by RefSeq, Jul 2008]

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Primary immunodeficiency

**Product images:**
