

## Recombinant Human CAP2, His-tagged

**Cat. No.** CAP2-10697H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human CAP2 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | 129-477a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | The protein encoded by this gene is a cyclin-dependent kinase 2 (CDK2) -associated protein which is thought to negatively regulate CDK2 activity by sequestering monomeric CDK2, and targeting CDK2 for proteolysis. This protein was found to also interact with DNA polymerase alpha/primase and mediate the phosphorylation of the large p180 subunit, which suggests a regulatory role in DNA replication during the S-phase of the cell cycle. This protein also forms a core subunit of the nucleosome remodeling and histone deacetylation (NURD) complex that epigenetically regulates embryonic stem cell differentiation. This gene thus plays a role in both cell-cycle and epigenetic regulation. Alternative splicing results in multiple transcript variants encoding distinct isoforms. |
| <b>Storage</b>          | The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage Buffer</b>   | 1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CAP2 CAP, adenylate cyclase-associated protein, 2 (yeast) [ Homo sapiens ]                                                                                                                                                |
| <b>Official Symbol</b>     | CAP2                                                                                                                                                                                                                      |
| <b>Synonyms</b>            | CAP2; CAP, adenylate cyclase-associated protein, 2 (yeast); adenylyl cyclase-associated protein 2; CAP 2; 2810452G09Rik;                                                                                                  |
| <b>Gene ID</b>             | 10486                                                                                                                                                                                                                     |
| <b>mRNA Refseq</b>         | NM_006366                                                                                                                                                                                                                 |
| <b>Protein Refseq</b>      | NP_006357                                                                                                                                                                                                                 |
| <b>UniProt ID</b>          | P40123                                                                                                                                                                                                                    |
| <b>Chromosome Location</b> | 6p22.3                                                                                                                                                                                                                    |
| <b>Pathway</b>             | Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Role of Abl in Robo-Slit signaling, organism-specific biosystem; Signaling by Robo receptor, organism-specific biosystem; |
| <b>Function</b>            | actin binding; binding;                                                                                                                                                                                                   |

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