

## Recombinant Human ANK1, His-tagged

**Cat. No.** ANK1-3490H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Ankyrin-1 (ANK1), partial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E.Coli/Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 1880                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | <p>Ankyrins are a family of proteins that link the integral membrane proteins to the underlying spectrin-actin cytoskeleton and play key roles in activities such as cell motility, activation, proliferation, contact and the maintenance of specialized membrane domains. Multiple isoforms of ankyrin with different affinities for various target proteins are expressed in a tissue-specific, developmentally regulated manner. Most ankyrins are typically composed of three structural domains: an amino-terminal domain containing multiple ankyrin repeats; a central region with a highly conserved spectrin binding domain; and a carboxy-terminal regulatory domain which is the least conserved and subject to variation. Ankyrin 1, the prototype of this family, was first discovered in the erythrocytes, but since has also been found in brain and muscles. Mutations in erythrocytic ankyrin 1 have been associated in approximately half of all patients with hereditary spherocytosis. Complex patterns of alternative splicing in the regulatory domain, giving rise to different isoforms of ankyrin 1 have been described. Truncated muscle-specific isoforms of ankyrin 1 resulting from usage of an alternate promoter have also been identified.</p> |

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 45-1 Ramsey Road, Shirley, NY 11967, USA

|                       |                                                                                                                                                                                                                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.                                                                                                                                                                              |
| <b>Purity</b>         | >90%                                                                                                                                                                                                                                                                                                          |
| <b>Notes</b>          | Small volumes of ANK1 recombinant protein may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container's cap. Certain products may require to ship with dry ice. |
| <b>Storage</b>        | Store at -20 degree C. For extended storage, store at -20 or -80 degree C.                                                                                                                                                                                                                                    |
| <b>Storage Buffer</b> | PBS pH 7.4, 50% glycerol                                                                                                                                                                                                                                                                                      |
| <b>Warning</b>        | This product is for research use only. Not for use in diagnostic or therapeutic procedures.                                                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | ANK1 ankyrin 1, erythrocytic [ Homo sapiens ]                                                     |
| <b>Official Symbol</b> | ANK1                                                                                              |
| <b>Synonyms</b>        | ANK1; ankyrin 1, erythrocytic; ANK; ankyrin-1; SPH1; ANK-1; ankyrin-R; erythrocyte ankyrin; SPH2; |
| <b>Gene ID</b>         | 286                                                                                               |
| <b>mRNA Refseq</b>     | NM_000037                                                                                         |
| <b>Protein Refseq</b>  | NP_000028                                                                                         |

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|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MIM</b>                 | 612641                                                                                                                                                                                                                                                            |
| <b>UniProt ID</b>          | P16157                                                                                                                                                                                                                                                            |
| <b>Chromosome Location</b> | 8p21.1-p11.2                                                                                                                                                                                                                                                      |
| <b>Pathway</b>             | Axon guidance, organism-specific biosystem; CHL1 interactions, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Interaction between L1 and Ankyrins, organism-specific biosystem; L1CAM interactions, organism-specific biosystem |
| <b>Function</b>            | cytoskeletal adaptor activity; cytoskeletal adaptor activity; enzyme binding; protein binding; spectrin binding; spectrin binding; structural constituent of cytoskeleton; structural molecule activity;                                                          |

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