

## Recombinant Human CD40, His-tagged

**Cat. No.** CD40-5119H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Recombinant human CD40 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | CD40 is a member of the TNF-receptor superfamily. This receptor has been found to be essential in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. AT-hook transcription factor AKNA is reported to coordinately regulate the expression of this receptor and its ligand, which may be important for homotypic cell interactions. Adaptor protein TNFR2 interacts with this receptor and serves as a mediator of the signal transduction. The interaction of this receptor and its ligand is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol, 1mM DTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | 21.6 kDa (196aa) confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSEPPTACR EKQYLINSQC CSLCQPGQKL<br>VSDCTEFTET ECLPCGESEF LDTWNRETHC HQHKYCDPNL GLRVQQKGTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | ETDTICTCEE GWHCTSEACE SCVLHRSCSP GFGVKQIATG VSDTICEPCP<br>VGFFSNVSSA FEKCHPWTSC ETKDLVVQQA GTNKTDVVC G PQDRLR                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>           | >90% by SDS - PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Applications</b>     | SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Storage</b>          | Can be stored at +4centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20centigrade or -70centigrade. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                              |
| <b>Concentration</b>    | 0.25 mg/ml (determined by Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Gene Name</b>        | CD40 CD40 molecule, TNF receptor superfamily member 5 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Official Symbol</b>  | CD40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>         | CD40; CD40 molecule, TNF receptor superfamily member 5; TNFRSF5, tumor necrosis factor receptor superfamily, member 5; tumor necrosis factor receptor superfamily member 5; Bp50; p50; CD40L receptor; CD40 type II isoform; B cell-associated molecule; B cell surface antigen CD40; B-cell surface antigen CD40; CD40 antigen (TNF receptor superfamily member 5); tumor necrosis factor receptor superfamily, member 5; nerve growth factor receptor-related B-lymphocyte activation molecule; CDW40; TNFRSF5; MGC9013; |
| <b>Gene ID</b>          | 958                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>      | NM_001250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protein Refseq</b>      | NP_001241                                                                                                                                                                                                                                                                                                                    |
| <b>MIM</b>                 | 109535                                                                                                                                                                                                                                                                                                                       |
| <b>UniProt ID</b>          | P25942                                                                                                                                                                                                                                                                                                                       |
| <b>Chromosome Location</b> | 20q12-q13.2                                                                                                                                                                                                                                                                                                                  |
| <b>Pathway</b>             | Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem; |
| <b>Function</b>            | enzyme binding; protein binding; receptor activity; signal transducer activity;                                                                                                                                                                                                                                              |

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