

## Human CD137/4-1BB/TNFRSF9 (C-His)

|                           |                       |
|---------------------------|-----------------------|
| <b>Catalog Number:</b>    | 808501, 808502        |
| <b>Size:</b>              | 25 ug, 100 ug         |
| <b>Target Name:</b>       | TNFRSF9, 4-1BB, CD137 |
| <b>Regulatory Status:</b> | RUO                   |

### PRODUCT DETAILS

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| <b>Application:</b>           | ELISA, BLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Format:</b>                | Liquid, Purified                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Expression Host:</b>       | CHO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species:</b>               | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Sources:</b>               | Recombinant Human CD137/4-1BB Protein (Leu24-Gln186) with C-terminus His-tag is expressed in CHO cell.                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Accession Number:</b>      | Q07011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Molecular Weight:</b>      | The protein has a predicted molecular weight of 18.9 kDa. Under DTT-reducing conditions, it migrates at approximately 26 kDa on SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                    |
| <b>Affinity Tag:</b>          | C-His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity:</b>                | >95% based on SDS-PAGE under reducing condition                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation:</b>           | 1xPBS buffer, pH7.4, 0.22 µm filtered                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin level:</b>       | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Concentration:</b> | 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage and Handling:</b>  | Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability. |

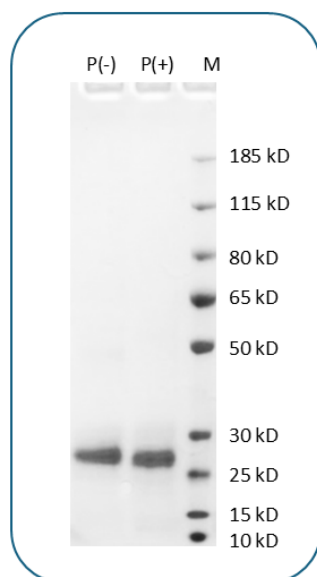
### BACKGROUND INFORMATION

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CD137 (4-1BB) is a co-stimulatory glycoprotein from the tumor necrosis factor (TNF) receptor superfamily, expressed on activated CD4+ and CD8+ T cells. It binds to its ligand, 4-1BBL, found on antigen-presenting cells like macrophages and activated B cells. The interaction between CD137 and 4-1BBL triggers signaling through tumor necrosis factor receptor-associated factors (TRAFs), activating pathways like NF-kappaB and cytokine production. This process promotes T cell activation, proliferation, and immune responses, as well as monocyte and B-cell activation. CD137 and 4-1BBL are present in various human tumors, suggesting they may influence tumor progression. Crosslinking CD137 has shown promise in enhancing anti-tumor immunity in preclinical models,

and agonistic anti-CD137 antibodies are currently being tested in phase I clinical trials. Additionally, soluble CD137 (sCD137) can antagonize the membrane-bound form's function, reducing T cell proliferation and IL-2 secretion.

## PRODUCT DATA



Human 4-1BB Protein (C-His) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95%.

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