

## 2B4/CD244 Active Protein | CD244 active protein

2B4/CD244 Protein, Human, Recombinant (His Tag)

CATALOG #  
**AAA257820**

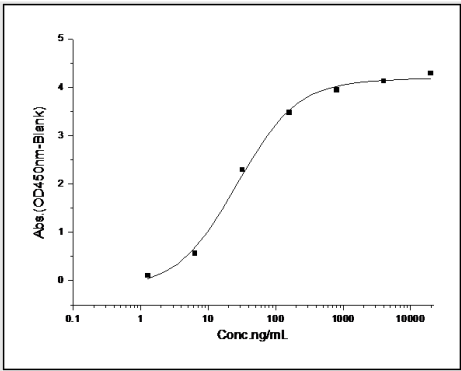
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

2B4/CD244; 2B4/CD244 Protein; Human; Recombinant (His Tag); Human 2B4/SLAMF/CD244 Protein (His Tag); 2B4 Protein; NAIL Protein; NKR2B4 Protein; Nmrk Protein; SLAMF4 Protein; CD244 molecule; natural killer cell receptor 2B4; CD244 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Purity/Purification     | >95% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.                                                                                                                                                                                                                                                                                               |
| Sequence                | Met1-Arg22 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Species                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Activity                | Measured by its binding ability in a functional ELISA. Immobilized human 2B4 at 2ug/ml (100uL/well) can bind human CD48. The EC50 of human CD48 is 0.39ug/ml.                                                                                                                                                                                                                                                                                                                                                    |
| Endotoxin               | <1.0EU per ug of the protein as determined by the LAL method                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Predicted N Terminal    | Cys 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Tag                     | C-His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Protein Construction    | A DNA sequence encoding the extracellular domain (Met 1-Arg 221) of human 2B4 (NP_057466.1) was expressed, with a polyhistidine tag at the C-terminus.                                                                                                                                                                                                                                                                                                                                                           |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                  |
| Preparation and Storage | <p>Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Measured by its binding ability in a functional ELISA. Immobilized human 2B4 at 2 ug/ml (100 ul/well) can bind human CD48. The EC50 of human CD48 is 0.39 ug/ml.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for CD244 active protein | Background: The CD244 antigen, also known as 2B4, is a cell surface glycoprotein implicated in the regulation of natural killer and T lymphocyte function. 2B4 is a member of the signaling lymphocyte activation molecule (SLAM)-related receptor family and is important for stimulating NK cell cytotoxicity and cytokine production, which is expressed on all NK cells, a subpopulation of T cells, monocytes and basophils. The 2B4 antigen identified on NK cells and T cells is capable of transmitting stimulatory signals and non-MHC-restricted killing. Reported as an activating receptor, human 2B4 can effectively activate and enhance NK cell-mediated cytotoxicity, induce secretion of IFN-gamma and matrix metalloproteinases (MMPs), as well as NK cell invasiveness. As a cell surface glycoprotein of the Ig-superfamily structurally related to CD2-like molecules such as CD2, CD48, CD58, CD84, Ly-9, and SLAM, 2B4 (CD244) is expressed on all human NK cells, a subpopulation of T cells, basophils and monocytes. 2B4 activates NK cell mediated cytotoxicity, induces secretion of IFN-gamma and matrix metalloproteinases, and NK cell invasiveness. |
| Product Categories/Family for CD244 active protein   | Cancer Drug Targets ITIM/ITAM Immunoreceptors and Related Molecules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| References                                           | Nakajima H, et al. (2000) 2B4: an NK cell activating receptor with unique specificity and signal transduction mechanism. Hum Immunol. 61(1): 39-43.Chuang SS, et al. (2001) 2B4 (CD244)-mediated activation of cytotoxicity and IFN-gamma release in human NK cells involves distinct pathways. J Immunol. 167(11): 6210-6.McNerney ME, et al. (2005) 2B4 (CD244) is a non-MHC binding receptor with multiple functions on natural killer cells and CD8+ T cells. Mol Immunol. 42(4): 489-94.Mathew SO, et al. (2009) Functional role of human NK cell receptor 2B4 (CD244) isoforms. Eur J Immunol. 39(6): 1632-41.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

NCBI AND UNIPROT INFORMATION

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| NCBI GI #                        | 7706529                                    |
| NCBI GeneID                      | 51744                                      |
| NCBI Accession #                 | NP_057466.1                                |
| NCBI GenBank Nucleotide #        | NM_016382.3                                |
| Molecular Weight                 | 30,784 Da                                  |
| NCBI Official Full Name          | natural killer cell receptor 2B4 isoform 1 |
| NCBI Official Synonym Full Names | CD244 molecule                             |
| NCBI Official Symbol             | CD244                                      |
| NCBI Official Synonym Symbols    | 2B4; NAIL; Nmrk; NKR2B4; SLAMF4            |
| NCBI Protein Information         | natural killer cell receptor 2B4           |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/2b4-cd244/257820>