

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human NKG2H in direct ELISAs and Western blots.                         |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2A</sub> Clone # 633810                               |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                      |
| <b>Immunogen</b>                                                                                                                                                                                        | Human NKG2H synthetic peptide<br>HGIKFYICSNRND<br>Accession # Q07444            |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                    |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                 |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Human NKG2H (NK cell Group 2 isoform H; also NK cell receptor H) is a 38 kDa member of the C-type lectin-like domain superfamily of molecules. It represents an alternative splice form of the NKG2E/KLRC3 gene, one of three related genes on human Ch12 that give rise to five isoform variants (NKG2A & B, C, E & H). NKG2H is present on both NK and CD8+ T cells as a 70 kDa disulfide-linked heterodimer with CD94. It serves as a receptor for HLA-E (Qa-1b in mice), an MHC-I like molecule that largely presents fragments of signal peptides associated with classical MHC-I molecules. When engaged, NKG2H is potentially activating, and perhaps will initiate cytolysis and cytokine production. Alternatively, it has been suggested that NKG2H is involved in monitoring the physiological state of its target cell, presumably through the detection of increased levels of HLA-E. In either case, this activity is likely to be context-dependent, as the related NK2GA and B isoforms are inhibitory in nature, and compete for the same target. NKG2H is a 257 amino acid (aa) type II transmembrane glycoprotein. It contains a 70 aa cytoplasmic segment coupled to a 164 aa extracellular region (aa 94-257) that possesses a 108 aa C-type lectin domain (aa 117-224). NKG2H is the long isoform of the KLRC3 gene (SwissProt #:Q07444). The short form (NKG2E) is 240 aa in length, and diverges from the long form beginning at Val227 where 14 aa substitute for aa 227-257 of the long form. Over aa 241-253, human NKG2H shares no meaningful sequence identity with any other NKG2 isoforms or rodent species orthologs.

## PRODUCT SPECIFIC NOTICES

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