NKG2-D (5C6): sc-53501

**BACKGROUND**

The activity of natural killer (NK) cells is regulated by members of multiple receptor families that recognize class I MHC molecules, such as the killer cell inhibitory receptor/leukocyte immunoglobulin-like receptor (KIR/LIR) family and the C-type lectin superfamily. The KIR/LIR family includes p81A (also designated pp130 or PIIR-B, for paired Immunoglobulin-like receptor-B) and p91B (also designated PIR-A). p91A acts as an inhibitory receptor through interactions with SHP-1, whereas p91B acts as an activating receptor. CD94, NKG2, and Ly-49 are members of the C-type lectin superfamily of type II membrane glycoproteins. CD94 forms heterodimers with NKG2 isoforms on the surface of NK cells, whereas Ly-49 isoforms form homodimers. NKG2-D, expressed on NK cells, γδ T cells, and CD8+ T cells, is a receptor for the stress inducible protein MICA, an antigen frequently expressed in epithelial tumors.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: KLRK1 (human) mapping to 12p13.2.

**SOURCE**

NKG2-D (5C6) is a mouse monoclonal antibody raised against NK1 cells of human origin.

**PRODUCT**

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NKG2-D (5C6) is available conjugated to agarose (sc-53501 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53501 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53501 PE), fluorescein (sc-53501 FITC), Alexa Fluor® 488 (sc-53501 AF488), Alexa Fluor® 546 (sc-53501 AF546), Alexa Fluor® 594 (sc-53501 AF594) or Alexa Fluor® 647 (sc-53501 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53501 AF680) or Alexa Fluor® 790 (sc-53501 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

NKG2-D (5C6) is recommended for detection of NKG2-D of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for NKG2-D shRNA (h): sc-42948, NKG2-D shRNA Plasmid (h): sc-42948-SH and NKG2-D shRNA (h) Lentiviral Particles: sc-42948-V.

Molecular Weight of NKG2-D: 42 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG<sub>1</sub> BP-HRP: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

![Western blot analysis of NKG2-D expression in K-562 whole cell lysate](image)

NKG2-D (5C6): sc-53501. Western blot analysis of NKG2-D expression in K-562 whole cell lysate.

![Indirect FCM analysis of TCR α/β+](image)

NKG2-D (5C6): sc-53501. Indirect FCM analysis of TCR α/β+ PE stained with NKG2-D (5C6), followed by PE-conjugated goat anti-mouse IgG<sub>1</sub>. Black line histogram represents the isotype control, normal mouse IgG<sub>1</sub>: sc-3708.

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.