

# Ly-6D (C-8): sc-373838

## BACKGROUND

Ly-6D (lymphocyte antigen 6D), also known as E48 antigen, is a 128 amino acid glycoprotein that is expressed in squamous cell carcinoma cell lines and squamous cell epithelia tissue. Ly-6D contains a signal peptide, two theoretical phosphorylation sites and three putative myristoylation sites. Upregulation of the gene encoding Ly-6D in head and neck cancers is associated with poor prognosis and high expression of Ly-6D has been linked to enhanced cell migration. Ly-6D is frequently used as a molecular marker for diagnosis and therapy of head-and-neck squamous cell carcinoma (HNSCC). It has been suggested that Ly-6D may regulate the expression levels of certain fucosylated E-Selectin ligands and protein FX, a protein that contributes to the last step in the synthesis of GDP-L-fucose, in HNSCC cell lines. This finding is indicative that Ly-6D may regulate tumor cell adhesion in inflamed vessel walls that express E-Selectin.

## REFERENCES

1. Brakenhoff, R.H., et al. 1995. The human E48 antigen, highly homologous to the murine Ly-6 antigen ThB, is a GPI-anchored molecule apparently involved in keratinocyte cell-cell adhesion. *J. Cell Biol.* 129: 1677-1689.
2. Brakenhoff, R.H., et al. 1997. A gain of novel tissue specificity in the human Ly-6 gene E48. *J. Immunol.* 159: 4879-4886.
3. Shan, X., et al. 1998. Characterization and mapping to human chromosome 8q24.3 of Ly-6-related gene 9804 encoding an apparent homologue of mouse TSA-1. *J. Immunol.* 160: 197-208.
4. Eshel, R., et al. 2000. The GPI-linked Ly-6 antigen E48 regulates expression levels of the FX enzyme and of E-Selectin ligands on head and neck squamous carcinoma cells. *J. Biol. Chem.* 275: 12833-12840.

## CHROMOSOMAL LOCATION

Genetic locus: LY6D (human) mapping to 8q24.3.

## SOURCE

Ly-6D (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 37-69 within an internal region of Ly-6D of human origin.

## PRODUCT

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

Ly-6D (C-8) is available conjugated to agarose (sc-373838 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373838 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373838 PE), fluorescein (sc-373838 FITC), Alexa Fluor<sup>®</sup> 488 (sc-373838 AF488), Alexa Fluor<sup>®</sup> 546 (sc-373838 AF546), Alexa Fluor<sup>®</sup> 594 (sc-373838 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-373838 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-373838 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-373838 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373838 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Ly-6D (C-8) is recommended for detection of Ly-6D of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ly-6D siRNA (h): sc-77553, Ly-6D shRNA Plasmid (h): sc-77553-SH and Ly-6D shRNA (h) Lentiviral Particles: sc-77553-V.

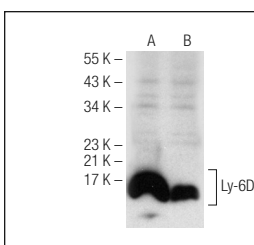
Molecular Weight of Ly-6D: 17 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or SCC-4 whole cell lysate: sc-364363.

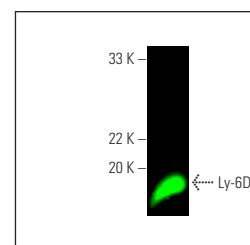
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Ly-6D (C-8): sc-373838. Western blot analysis of Ly-6D expression in A-431 (A) and SCC-4 (B) whole cell lysates.



Ly-6D (C-8): sc-373838. Near-infrared western blot analysis of Ly-6D expression in A-431 whole cell lysate. Blocked with UltraCruz<sup>®</sup> Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS

1. Nagano, T., et al. 2020. LY6D-induced macropinocytosis as a survival mechanism of senescent cells. *J. Biol. Chem.* 296: 100049.

## 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.

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