

# XEDAR (G-5): sc-377423

## BACKGROUND

The tumor necrosis factor receptor (TNFR) superfamily represents a growing family of type I transmembrane glycoproteins that are involved in various cellular functions, including proliferation, differentiation and programmed cell death. These proteins share homology for cysteine-rich repeats in the extracellular ligand binding domain and an intracellular death domain. Members of the TNFR superfamily transmit signals through protein-protein interactions, and these signals can lead to the activation of either the caspase and Jun kinase pathways, which promote cell death, or the NF $\kappa$ B pathway, which results in cell survival. The ectodermal dysplasia receptor (EDAR) promotes all three of these pathways and mediates ectodermal differentiation. EDAR is encoded by the downless gene and is mutated in ectodermal dysplasia syndromes, which are characterized by impaired hair, teeth and sweat gland development. Ectodysplasin A (EDA) is a type II membrane protein that is encoded by the Tabby gene and produces many splice variants, the longest of which, EDA-A1, serves as the ligand for EDAR. EDA-A2, which differs from EDA-A1 by the deletion of two amino acids, binds only the X-linked ectodysplasin-A2 receptor (XEDAR). Both EDAR and XEDAR exhibit homology with TROY.

## REFERENCES

1. Gruss, H.J. 1996. Molecular, structural, and biological characteristics of the tumor necrosis factor ligand superfamily. *Int. J. Clin. Lab. Res.* 26: 143-159.
2. Gruss, H.J., et al. 1996. Structural and biological features of the TNF receptor and TNF ligand superfamilies: interactive signals in the pathobiology of Hodgkin's disease. *Ann. Oncol.* 7: 19-26.
3. Baker, S.J., et al. 1998. Modulation of life and death by the TNF receptor superfamily. *Oncogene* 17: 3261-3270.
4. Tucker, A.S., et al. 2000. EDAR/EDA interactions regulate enamel knot formation in tooth morphogenesis. *Development* 127: 4691-4700.

## CHROMOSOMAL LOCATION

Genetic locus: EDA2R (human) mapping to Xq12.

## SOURCE

XEDAR (G-5) is a mouse monoclonal antibody raised against amino acids 220-297 mapping at the C-terminus of XEDAR of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\kappa$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

XEDAR (G-5) is available conjugated to agarose (sc-377423 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377423 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377423 PE), fluorescein (sc-377423 FITC), Alexa Fluor<sup>®</sup> 488 (sc-377423 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377423 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377423 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377423 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377423 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-377423 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

XEDAR (G-5) is recommended for detection of XEDAR of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 XEDAR siRNA (h): sc-40249, XEDAR shRNA Plasmid (h): sc-40249-SH and XEDAR shRNA (h) Lentiviral Particles: sc-40249-V.

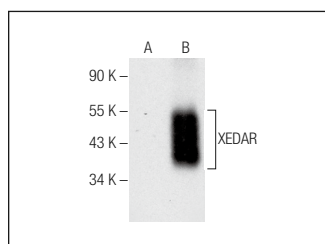
Molecular Weight of XEDAR: 37 kDa.

Positive Controls: XEDAR (h): 293T Lysate: sc-370816.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



XEDAR (G-5): sc-377423. Western blot analysis of XEDAR expression in non-transfected: sc-117752 (A) and human XEDAR transfected: sc-370816 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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