SANTA CRUZ BIOTECHNOLOGY, INC.

MyD88 (E-11): sc-74532

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin-1 (IL-1)-induced activation of the NFκB pathway is mediated through the IL-1 receptor and the subsequent phosphorylation of IL-1 receptor-associated kinase (IRAK). The myeloid differentiation protein MyD88 was originally characterized as a protein upregulated in myeloleukemic cells following IL-6-induced growth arrest and terminal differentiation. MyD88 is now known to function as an adaptor protein for the association of IRAK with the IL-1 receptor. MyD88 is functionally homologous to the adaptor protein tube in the Toll signaling pathway of *Drosophilia*, and both proteins are members of the Toll/IL-1R superfamily. MyD88 contains a characteristic N-terminal death domain that is essential for NFκB activation and an adjacent Toll/IL-1R homology domain (TIR domain). Collectively, these domains enable the protein-protein interactions of MyD88 with IRAK and the IL-1 receptor complex.

CHROMOSOMAL LOCATION

Genetic locus: MYD88 (human) mapping to 3p22.2; Myd88 (mouse) mapping to 9 F3.

SOURCE

MyD88 (E-11) is a mouse monoclonal antibody raised against amino acids 1-296 of MyD88 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MyD88 (E-11) is available conjugated to agarose (sc-74532 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-74532 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74532 PE), fluorescein (sc-74532 FITC), Alexa Fluor® 488 (sc-74532 AF488), Alexa Fluor® 546 (sc-74532 AF546), Alexa Fluor® 594 (sc-74532 AF594) or Alexa Fluor® 647 (sc-74532 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74532 AF680) or Alexa Fluor® 790 (sc-74532 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MyD88 (E-11) is recommended for detection of MyD88 of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

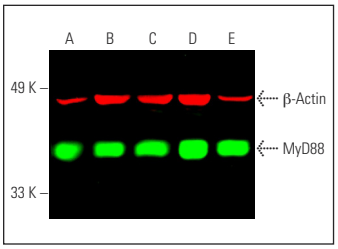
Suitable for use as control antibody for MyD88 siRNA (h): sc-35986, MyD88 siRNA (m): sc-35987, MyD88 siRNA (r): sc-106986, MyD88 shRNA Plasmid (h): sc-35986-SH, MyD88 shRNA Plasmid (m): sc-35987-SH, MyD88 shRNA Plasmid (r): sc-106986-SH, MyD88 shRNA (h): Lentiviral Particles: sc-35986-V, MyD88 shRNA (m): Lentiviral Particles: sc-35987-V and MyD88 shRNA (r) Lentiviral Particles: sc-106986-V.

Molecular Weight of MyD88: 33 kDa.

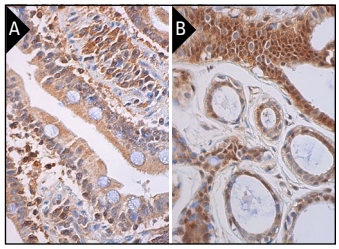
STORAGE

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

DATA



Simultaneous direct near-infrared western blot analysis of MyD88 expression, detected with MyD88 (E-11) Alexa Fluor® 680: sc-74532 AF680 and β-Actin expression, detected with β-Actin (C4) Alexa Fluor® 790: sc-47778 AF790 in LNCaP (**A**), HEL 92.1.7 (**B**), Raji (**C**), Jurkat (**D**) and SK-BR-3 (**E**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



MyD88 (E-11): sc-74532. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic and nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Cheung, H.H., et al. 2010. Smac mimetic compounds potentiate interleukin-1β-mediated cell death. J. Biol. Chem. 285: 40612-40623.
2. Kim, J.E., et al. 2014. Paclitaxel-exposed ovarian cancer cells induce cancer-specific $CD4^+$ T cells after doxorubicin exposure through regulation of MyD88 expression. Int. J. Oncol. 44: 1716-1726.
3. Sun, J., et al. 2016. Comprehensive RNAi-based screening of human and mouse TLR pathways identifies species-specific preferences in signaling protein use. Sci. Signal. 9: ra3.
4. Wang, S., et al. 2017. Dietary teasaponin ameliorates alteration of gut microbiota and cognitive decline in diet-induced obese mice. Sci. Rep. 7: 12203.
5. Xie, X.L., et al. 2018. METH-induced neurotoxicity is alleviated by lactulose pretreatment through suppressing oxidative stress and neuroinflammation in rat striatum. Front. Neurosci. 12: 802.
6. Li, W., et al. 2019. MicroRNA-451 relieves inflammation in cerebral ischemia-reperfusion via the Toll-like receptor 4/MyD88/NFκB signaling pathway. Mol. Med. Rep. 20: 3043-3054.
7. Osuka, K., et al. 2020. Expression of high mobility group B1 and Toll-like receptor-nuclear factor κB signaling pathway in chronic subdural hematomas. PLoS ONE 15: e0233643.
8. Arellanes-Robledo, J., et al. 2021. Flightless-I is a potential biomarker for the early detection of alcoholic liver disease. Biochem. Pharmacol. 183: 114323.

RESEARCH USE

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