**BACKGROUND**

Two forms of interleukin-1, designated IL-1β and IL-1α, have been described. Although encoded by distinct genes and exhibiting roughly only 25% sequence identity, IL-1α and IL-1β bind to the same receptor and seem to elicit similar biological responses. IL-1 production is generally thought to be associated with inflammation, but it has also been shown to be expressed during kidney development, thymocyte differentiation and cartilage degradation. IL-1 plays a critical role in the regulation of immune response and inflammation, acting as an activator of T and B lymphocytes and natural killer (NK) cells. In T cells, IL-1 stimulates the production of IL-2 and selectively inhibits IL-4 expression. IL-1 induces B cell proliferation and maturation, and immunoglobulin synthesis. NK cells require IL-1 for production of the anti-pathogen IFN-γ. IL-1 has also been implicated in several pathological conditions including rheumatoid arthritis, inflammatory bowel disease and atherosclerosis.

**CHROMOSOMAL LOCATION**

Genetic locus: IL1B (human) mapping to 2q14.1.

**SOURCE**

IL-1β (E7-2-hIL1β) is a mouse monoclonal antibody raised against recombinant IL-1β of human origin.

**PRODUCT**

Each vial contains 200 μg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-1β (E7-2-hIL1β) is available conjugated to agarose (sc-32294 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32294 HRP), 200 μg/ml, for WB, HRP and ELISA; to either phycoerythrin (sc-32294 PE), fluorescein (sc-32294 FITC), Alexa Fluor® 488 (sc-32294 AF488), Alexa Fluor® 546 (sc-32294 AF546), Alexa Fluor® 594 (sc-32294 AF594) or Alexa Fluor® 647 (sc-32294 AF647), 200 μg/ml, for WB (RGB), IF, IF/IFC (IFC) and FCM; and to either Alexa Fluor® 680 (sc-32294 AF680) or Alexa Fluor® 790 (sc-32294 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**APPLICATIONS**

IL-1β (E7-2-hIL1β) is recommended for detection of IL-1β 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]), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for IL-1β siRNA (h): sc-39615, IL-1β shRNA Plasmid (h): sc-39615-H1 and IL-1β shRNA (h) Lentiviral Particles: sc-39615-V.

Molecular Weight of IL-1β precursor: 31 kDa.

Molecular Weight of mature IL-1β: 17 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IL-1β (h): 293 Lysate: sc-111184 or BJAB whole cell lysate: sc-2207.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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