EpiDtect™

IL-1 Beta Primary Antibody

Clone: IL1B/3993 (Mouse Monoclonal)

Localization – Cytoplasm
Host Species – Mouse
Ig Class – IgG2 / Kappa

ORDERING INFORMATION	
CATALOG#	**DESCRIPTION**
DH575-01C	0.1 ML Concentrated Antibody Vial
DH575-05C	0.5 ML Concentrated Antibody Vial
DH575-1C	1 ML Concentrated Antibody Vial
DH575-3R	3 ML Ready-to-Use Antibody Vial
DH575-6R	6 ML Ready-to-Use Antibody Vial
DH575-12R	12 ML Ready-to-Use Antibody Vial

Intended Use
This antibody is designed for the specific localization of IL-1 Beta in formalin-fixed, paraffin-embedded (FFPE) tissue sections.

Storage & Handling
Store RTU Vial at 2-8°C. Fresh dilutions for concentrated antibodies, if required, should be prepared prior to use and are stable for up to one day at room temperature (20-26°C).

Working Principle
IHC is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The primary antibody may be used in IHC using anual techniques or any Automated Staining System. Positive and negative controls should always be run simultaneously with all patient specimens.

Product Description
This monoclonal antibody recognizes a protein with an apparent molecular weight ranging from 17 to 31 kDa, identified as Interleukin-1 beta (IL-1β). It exhibits no cross-reactivity with Interleukin-1 alpha (IL-1α). The epitopes recognized by monoclonal antibodies IL1B/463 and IL1B/3993 are distinct, making them suitable for use as a capture–detection pair in sandwich ELISA development.IL-1β is a pro-inflammatory cytokine synthesized primarily by activated macrophages as an inactive precursor (pro-IL-1β), which undergoes proteolytic cleavage by caspase-1 (CASP1/ICE) to generate the biologically active form. Functionally, IL-1β serves as a key mediator of the inflammatory cascade, modulating diverse cellular processes such as cell proliferation, differentiation, and apoptosis.In the central nervous system (CNS), IL-1β–induced cyclooxygenase-2 (PTGS2/COX-2) expression contributes to inflammatory pain hypersensitivity. Genomically, the IL1B gene resides within a cytokine gene cluster on chromosome 2, which also contains eight other interleukin-1 family members, collectively coordinating innate immune and inflammatory signaling pathways.

Material Supplied
IL-1 Beta antibody is affinity purified and diluted in PBS, pH 7.4, containing 1% BSA and 0.09% sodium azide.

Material required But Not Supplied
- Xylene
- DI Water
- Control Tissues
- Isopropyl alcohol
- Antigen retrieval buffers
- Hematoxylin
- Positive charged slides
- Blocking Reagents
- Mounting media
- Wash Buffer
- Detection System
- Cover glass

Working Reagent Procedure
- Ready-to-Use antibodies have been optimized for use with the recommended protocols and should not require further dilution.
- Concentrated antibodies must be diluted in accordance with the recommended protocol.

Recommended Protocol
Refer the following table for the details on specific recommended protocol for this antibody.

Control Tissue	Human colon or liver tissue
Dilution factor	**1:20-50** (Antibody Diluent: DH144)

Antibody Incubation Time	30-60 Minutes at RT
Retrieval Pre-treatment	**Tris-EDTA based HIER** (AR9 Buffer: DH020)

Precautions
This product should be used by qualified and trained professional users only.
Avoid microbial contamination of reagents to minimize non-specific staining. Never pipette reagents by mouth. Avoid contact of reagents and specimens with skin. If reagents or specimens come into contact with sensitive area, wash with sufficient amounts of water. Dispose of the unused reagents. This kit contain sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at these concentrations, but proper handling protocols should be observed. For more information on product hazards, precautions and waste disposal, *Material Safety Data Sheets* are available upon request.

Limitations
Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure. Evaluation must be performed by a qualified pathologist.

Troubleshooting
For Technical Support contact us at +91 - *7506501122* or *info@dygnova.com* or your local distributor to report unusual staining.

	Manufacturer Details		Use by Date	LOT	Lot/Batch Number
	Manufacturing Date		Consult Instructions for Use	REF	Catalogue Number
	Temperature Limits		Sufficient for 'n' assays / tests	IVD	In-vitro Diagnostic Medical Device

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