



Monoclonal Anti-mouse pDC/IPC/CD317/BST2

1/ DESCRIPTION:

We generated rat monoclonal antibody (mAb) that recognizes mouse plasmacytoid dendritic cells (pDCs). The target molecule was found to be BST2 (bone marrow stromal cell antigen 2). This antibody, named 120G8, stains a small subset of CD11c^{low} spleen cells with high specificity. This population produces high amounts of IFN α upon *in vitro* viral stimulation. Both *ex vivo*- and *in vitro*-derived 120G8⁺ cells display a phenotype identical with that of mouse pDCs (B220^{high}Ly6C^{high}Gr1^{low}CD11b⁻CD11c^{low}). Mice treated with 120G8 mAb are depleted of B220^{high}Ly6C^{high}CD11c^{low} cells and have a much reduced ability to produce IFN α in response to *in vivo* CpG stimulation. mAb 120G8 stains all and only B220^{high}Ly6C^{high}CD11c^{low} pDC in all lymphoid organs. Immunohistochemical studies performed with this mAb indicate that pDC are located in the T cell area of spleen, lymph nodes, and Peyer's patches. Using 120G8 mAb in immunofluorescence studies demonstrates mouse strain- and organ-specific differences in the frequency of pDCs and other DC subsets.

Clone: 120G8

Species: rat

Isotype: IgG1, K

Immunogen: mouse plasmacytoid dendritic cells (pDC)

Species cross-reactivity: ND

Specificity: mouse pDCs/IFN producing cells (IPC) (extracellular domain)

2/ STABILITY-CONSERVATION :

Aliquot storage conditions: -20°C. KEEP CONTENTS STERILE: no preservative.

Purified antibodies: avoid repeated freeze/thaw cycles.

Coupled antibodies: glycerol protects from freezing.

Stable one year upon receipt

3/ AVAILABLE FORMATS:

Reference N°	Format	Application tested
100 μ g		
DDX0390P-100	Purified	<i>In vivo</i> Depletion, FC, IHC (cryosection)
DDX0390A488-100	Alexa-fluor® 488	Flow Cytometry, IF
DDX0390A546-100	Alexa- fluor® 546	IF
DDX0390A647-100	Alexa- fluor® 647	Flow Cytometry
DDX0390B-100	Biotin (<i>on request</i>)	IHC (cryosection), Flow Cytometry
DDX0390-HD01	1 mg	<i>In vivo</i> Depletion
DDX0390-HD05	5 mg	<i>In vivo</i> Depletion
DDX0390-HD10	10 mg	<i>In vivo</i> Depletion

4/ USAGE RECOMMENDATION

This antibody may be used between 5-20 μ g/ml.

Optimal dilution should be determined by each laboratory for each application.

Coupled antibody: to maintain room temperature before use

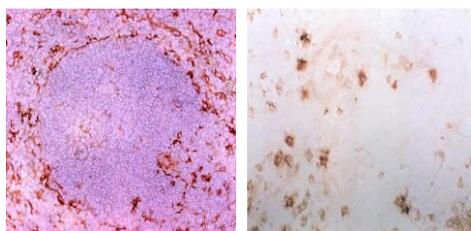
For R&D use only

5/ MATERIALS AND METHODS

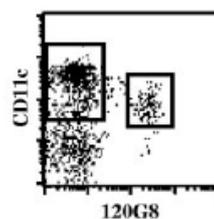
Purification: QMA Hyper D ion exchange chromatography

Purified in Tris-NaCl pH8 and adjusted at 0.5mg/ml in PBS+ antibiotics

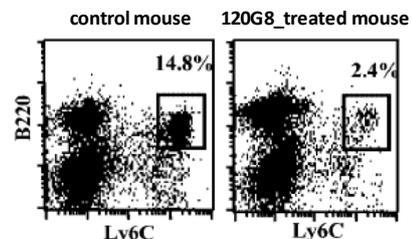
Coupled: 0.5mg/ml in PBS 50%glycerol+ antibiotics



IHC staining of murine spleen cryosections



Facs sorting of mouse PDCs (120G8/CD11c)



In vivo depletion of mouse PDCs (gated on CD11c+CD3- cells)

6/ BIBLIOGRAPHY :

<http://www.dendritics.net/products/detail/ddx0390-120g8.04>