



CD74

IHC of CD74 on an FFPE Tonsil Tissue

Description CD74, also known as the MHC Class II-associated invariant chain (Ii), is a Type II transmembrane protein which binds to the peptide-binding groove of newly-synthesized MHC class II alpha/beta heterodimers and prevents their premature association with endogenous polypeptides. CD74 is expressed primarily by antigen-presenting cells such as B-lymphocytes (from before the pre-B-cell stage to before the plasma-cell stage), macrophages and monocytes, together with many epithelial cells.

CD74 stains predominantly germinal-center lymphocytes and B-cell lymphomas but rarely T-cell lymphomas. It stains the cell membrane but a paranuclear globular labeling is also noted. CD74 is useful in differentiating Atypical Fibroxanthoma from Malignant Fibrous Histiocytoma, as well as Small-cell Lung Carcinoma from Non-small cell Lung Carcinomas.

Antibody Type	Mouse Monoclonal	Clone	LN2
Isotype	IgG1	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic, Membranous	Control	Tonsil, Lymph Node
Storage	Store at 2°-8°C	Stability	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

Presentation CD74 antibody is a mouse monoclonal from ascites fluid diluted in Phosphate Buffered Saline, pH 7.6, with protein base, and preserved with Sodium Azide preservative.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5295	Prediluted	Ready-To-Use	3.0 ml
	BSB 5296	Prediluted	Ready-To-Use	7.0 ml
	BSB 5297	Prediluted	Ready-To-Use	15.0 ml
	BSB 5298	Concentrated	1:25-1:100	0.1 ml
	BSB 5299	Concentrated	1:25-1:100	0.5 ml
	BSB 5300	Concentrated	1:25-1:100	1.0 ml
	BSB 5301	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- References**
- Chan JKC, et al. *Histopathology*. 1994;25:517-536.
 - Kasaian MT, et al. *Proc of the Soc for Exp Bio and Med*. 1991;197:226-241
 - Jones NH, et al. *Nature*. 1986;323:346-349

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
 2. Air dry for 2 hours at 58° C.
 3. Deparaffinize, dehydrate and rehydrate tissues.
 4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
 5. Any of three heating methods may be used:
 - a. **Electric Pressure Cooker**
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. **Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
 - c. **Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
 6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
 7. Wash slides with IHC wash buffer or DI water.
 8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

