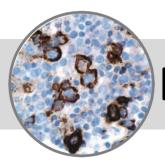
# **Follicular Dendritic Cell**

Clone: CNA.42 Mouse Monoclonal





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Inset: IHC of Follicular Dendritic Cell on a FFPE Tonsil Tissue

# **Intended Use**

For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalinfixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

# **Immunogen**

Splenocytes from nude mice grafted with the human lymphoblastic CEM T-cell line.

# **Summary and Explanation**

Follicular Dendritic Cells (FDC) are immune cells whose main function is to process antigen material and present it superficially to other cells of the immune system. Dendritic cells are present in small quantities in tissues that are in contact with the external environment, mainly the skin (where they are often called Langerhans cells) and the inner lining of the nose, lungs, stomach and intestines. They can also be found in an immature state in the blood. Once activated, they migrate to the lymphoid tissues where they interact with T-cells and B-cells to initiate and shape the immune response.

Anti-FDC is useful in the identification of follicular dendritic cell matrix found in normal lymph nodes and tonsillar tissue. This antibody has been found to label cells in approximately 60% of Anaplastic Large-Cell Lymphomas, and approximately 45% of T-cell Lymphomas. This antibody also labels Follicular Dendritic Cell Tumors. Several normal non-lymphoid tissues are labeled with anti-FDC: pancreatic islet cells, gastric chief cells, myelin sheaths, salivary glands, Leydig cells of the testis, and endothelial cells.

Antibody Type	Mouse Monoclonal	Clone	CNA.42	
Isotype	IgM/K	Reactivity	Paraffin, Frozen	
Localization	Cytoplasmic	Control	Tonsil, Lymph Node	
	Species Reactivity	Human, Cat, Cow, Mouse Rabbit,		
		Rat, Sheep, Swine		

## **Precautions**

- 1. For professional users only. Results should be interpreted by a qualified medical
- 2. This product contains <0.1% sodium azide (NaN<sub>3</sub>) as a preservative. Ensure proper handling procedures are used with this reagent.
- 3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
- 4. Dispose of unused solution with copious amount of water.
- 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
- 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
- 7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
- 8. For additional safety information refer to Safety Data Sheet for this product.
- 9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

# **Presentation**

Anti-FDC is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Catalog No.	Antibody Type	Dilution	Volume/Qty	
BSB 5526	Tinto Prediluted Ready-to-Use		3.0 mL	
BSB 5527	Tinto Prediluted	Ready-to-Use	7.0 mL	
BSB 5528	Tinto Prediluted	Ready-to-Use	15.0 mL	
BSB 5529	5529 Concentrated 1:25 - 1:100		0.1 mL	
BSB 5530	Concentrated	1:25 - 1:100	0.5 mL	
BSB 5531	Concentrated	1:25 - 1:100	1.0 mL	

# **Control Slides Available**

Catalog No.	Quantity		
BSB 5532	5 slides		

**Storage** Store at 2-8°C (Control Slides: Store at 20-25°C)

## Stability

This product is stable up to the expiration date on the product label. Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

## **Specimen Preparation**

**Paraffin sections:** The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033) or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

# **Staining Procedure**

- 1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
- 2. Air dry for 2 hours at 58° C.
- 3. Deparaffinize, dehydrate and rehydrate tissues.
- 4. Subject tissues to heat induced epitope retrieval (HIER) 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. TintoRetriever Pressure Cooker or Equivalent

Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.

#### b. TintoRetriever PT Module or Water Bath Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA 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. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
- 8. Wash slides with ImmunoDNA washer or DI water.
- 9. Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

#### Abbreviated Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP	
Peroxidase/AP Blocker	5 min.	5 min.	5 min 30-60 min.	
Primary Antibody	30-60 min.	30-60 min.		
1st Step Detection	10 min.	30-45 min.	15 min.	
2nd Step Detection	10 min.	Not Applicable	15 min. 5-10 min. Varies	
Substrate-Chromogen	5-10 min.	5-10 min.		
Counterstain / Coverslip	Varies	Varies		

## **Performance Characteristics**

Normal Tissu	les			
Positive (+)				
Secondary lymphoid follicles in reactive lymph nodes, tonsils, white pulp of				
	spleen and Peyer´s patches			
In th	nymus, a subpopulation of large cortical thymocytes			
In non-lymphoi	d organs the antibody labelled pancreatic islet cells, gastric chief			
cells, acini in sa	alivary gland, Leydig cells of the testis, myelin sheaths, smooth			
muscles of t	the arterial wall, striated muscle fibers and endothelial cells			
Abnormal Tis	ssues			
	Positive (+)			
mali	gnant cells in 6/129 (5%) cases of B-cell lymphomas			
malig	nant cells in 30/184 (16%) cases of T-cell lymphomas			
malig	nant cells in 23/105 (22%) cases of Hodgkin´s disease			
malignant cells	in 44/114 (39%) of diverse non-hematopoietic tumours such as			
different ne	eurogenic tumours and carcinomas of gastrointestinal origin			
In 11/11 cases of	Epstein-Barr virus related inflammatory pseudotumour-like FDC			

# **Mounting Protocols**

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to Pl0174 or Pl0097.

tumours, the antibody labelled FDCs, scattered mononuclear cells, mast cells as

well as and some epithelial and mesenchymal cells

## **Product Limitations**

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

## References

- 1. Raymond I, et al. Am J Pathol. 1997; Dec; 151(6):1577-85
- 2. Chan AC, et al. Histopathology. 2001; Jun; 38(6): 510-8
- 3. Cheuk W, et al. Am J Surg Pathol. 2001; Jun; 25(6):721-31
- 4. Baur AS, et al. Histopathology. 1998;Jun;32(6):512-20
- 5. Kunihiko M, et al. J Histochem & Cytothem. 2002;50(11):1475-85
- 6. Pileri SA, et al. Histopathology. 2002;41,1-29
- 7. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.

# Symbol Key / Légende des symboles/Erläuterung der Symbole

-	EC REP	2514 AP The Hague The Netherlands	<sub>2'O</sub> arc	Storage Temperature Limites de température Zulässiger Temperaturbereich	<b>~</b>	Manufacturer Fabricant Hersteller	REF	Catalog Number Référence du catalogue Bestellnummer
	IVD D	In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum	$\bigcap$ i	Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten	><	Expiration Date Utiliser jusque Verwendbar bis	LOT	Lot Number Code du lot Chargenbezeichnung

