Technical Data Sheet

Purified Mouse Anti-Human CD344

Product Information

Material Number:	
Alternate Name:	
Size:	
Clone:	
Immunogen:	
Isotype:	
Reactivity:	
Storage Buffer:	

563657

FZD4; Frizzled family receptor 4; Frizzled-4; Fz-4; FzE4; hFz4; EVR1; FEVR 0.1 mg CH3A4A7 Human neuroblastoma Cell Line Mouse (BALB/c) IgG1, ĸ QC Testing: Human Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The CH3A4A7 monoclonal antibody reacts with an extracellular epitope on human CD344 which is also known as Frizzled family receptor 4 (FZD4) or Frizzled-4. CD344 is a member of the Frizzled family of proteins within the G protein-coupled receptor (GPCR) superfamily. CD344 is a receptor for Wnt proteins and participates in the activation of the Wnt/beta-catenin pathway (canonical Wnt signaling). Patients with familial exudative vitreoretinopathy (FEVR) carry mutations in Frizzled-4. This disease is characterized by retinal degeneration and hearing loss. On tissues, CD344 is almost ubiquitously expressed. CD344 is highly expressed in adult heart and skeletal muscle.



Flow Cytometric and Immunohistochemical Analysis of CD344 Expression.

Panel A: Flow cytometric analysis of CD344 expression on human cell lines. Cells from the Weri-RB-1 Retinoblastoma Cell Line (ATCC HTB-169; solid line histogram) and Daudi Burkitt's Lymphoma Cell Line (ATCC CCL-213; dashed line histogram) were stained with Purified Mouse Anti-Human CD344 antibody (Cat. No. 563657). The cells were then washed and stained with PE Polyclonal Goat Anti-Mouse Ig (Cat. No.550589). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD FACSCanto™ II Flow Cytometer System.

Panel B: Immunohistochemical analysis of CD344 expression by cardiac muscle. Acetone-fixed, frozen human heart sections were stained with either Purified Mouse IgG1 κ Isotype Control (Cat. No.550878; Left Image) or Purified Mouse Anti-Human CD344 antibody (Right Image). A three-step staining procedure that employed Biotin Goat Anti-Mouse Immunoglobulin (Cat. No. 550337), Streptavidin-Horseradish Peroxidase (HRP) (Cat. No. 550946), and the DAB Substrate Kit (Cat. No. 550880) was used to develop the primary staining reagents. Original magnification:40×.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Western blot	Not Recommended

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Suggested Companion Products

Catalog Number	Name	Size	Clone	
554656	Stain Buffer (FBS)	500 ml	(none)	
550589	PE Goat Anti-Mouse Ig (Multiple Adsorption)	0.2 mg	Polyclonal	
550878	Purified Mouse IgG1 K Isotype Control	1.0 ml	MOPC-31C	
550337	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	1.0 ml	Polyclonal	
550946	Streptavidin HRP	50 ml	(none)	
550880	DAB Substrate Kit	500 tests	(none)	

Product Notices

Since applications vary, each investigator should titrate the reagent to obtain optimal results. 1.

- 2. An isotype control should be used at the same concentration as the antibody of interest.
- 3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before 4. discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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