Technical Data Sheet

BV711 Rat Anti-Human TSPAN8

Product Information

Material Number:	748227
Size:	50 µg
Clone:	458811
Alternative Name:	TM4SF3; transmembrane 4 superfamily member 3; tetraspanin-8; tspan-8; CO-029
Reactivity:	Human (Tested in Development)
Isotype:	Rat IgG2b, κ
Immunogen:	Human TSPAN8 Transfected Cell Line
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 458811 monoclonal antibody specifically recognizes Tetraspanin-8 (TSPAN8) that belongs to the Transmembrane 4 (Tetraspanin) superfamily (TM4SF). This molecule is also known as Transmembrane 4 superfamily member 3 (TM4SF3) or Tumor-associated antigen CO-029 (CO-029). TSPAN8 is a ~27-34 kDa protein that spans the membrane four times with transmembrane segments and has intracellular N- and C-termini. TSPAN8 has a small and a large extracellular loop that can mediate dimerization and association with other molecules including integrins, proteases, or cell signaling receptors. TSPAN8 is expressed on hematopoietic progenitor cells, non-keratinized squamous epithelium, endothelial cells, smooth and skeletal muscle cells as well as multiple tumor cell types. TSPAN8 is involved in angiogenesis, thrombosis, epithelial wound healing and may contribute to tumor cell metastasis.

The antibody was conjugated to BD Horizon™ BV711 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

Preparation and Storage Section

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with BD Horizon BV711 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer RUO	100 mL	
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
563045	BV711 Rat IgG2b, κ Isotype Control RUO	50 µg	
554656	Stain Buffer (FBS) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Violet 711 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
10. Cy is a trademark of GE Healthcare.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

References

Jakobsen KR, Paulsen BS, Baek R, Varming K, Sorensen BS, Jorgensen MM. Exosomal proteins as potential diagnostic markers in advanced non-small cell lung carcinoma. J Extracell Vesicles. 2015; 4:26659.
Sondergaard EKL, Pugholm LH, Baek R, Jorgensen MM, Revenfeld ALS, Varming K. Oxygen-Related Differences in Cellular and Vesicular Phenotypes Observed for Ovarian Cell Cancer Lines. J Circ Biomark. 2016; 5:1.
Yue S, Zhao K, Erb U, Rana S, Zoller M. Joint features and complementarities of Tspan8 and CD151 revealed in knockdown and knockout models. Biochem Soc Trans. 2017; 45(2):437-447.

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