

# Technical Data Sheet

## BV711 Mouse Anti-Human EphA2

### Product Information

Material Number:	748149
Size:	50 µg
Clone:	371805
Alternative Name:	EPHA2; ECK; ARCC2; CTPA; CTPP1; CTRCT6
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG2a, κ
Immunogen:	Human EphA2 Recombinant Protein
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

### Description

The 371805 monoclonal antibody specifically recognizes Ephrin type-A receptor 2 (EphA2). EphA2 is a ~130 kDa type I transmembrane glycoprotein that is encoded by EPHA2 (EPH receptor A2) which belongs to ephrin receptor subfamily within the receptor tyrosine kinase (RTK) family. EphA2 is also known as Epithelial cell kinase (ECK) or Epithelial cell receptor protein tyrosine kinase. The extracellular region of EphA2 contains an N-terminal globular domain, a cysteine-rich domain and 2 fibronectin type III repeats, whereas the cytoplasmic domain contains two tyrosine residues adjacent to the membrane that function as major autophosphorylation sites and a kinase domain. EphA2 is variably expressed by epithelial cells, dendritic cells, Langerhans cells, keratinocytes, and endothelial cells. EphA2 functions as a receptor for glycosphosphatidylinositol (GPI) membrane-linked members of the Ephrin-A family, including Ephrins A1-A5. EphA2 is involved in regulating cellular growth, adhesion, migration, survival, and plays a role in angiogenesis. Its expression may be upregulated on vascular endothelium in certain breast, prostate, and colon cancers as well as on some metastatic tumor cells.

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

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
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	

563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
563345	BV711 Mouse IgG2a, $\kappa$ Isotype Control	50 $\mu$ g	G155-178

## 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](http://www.bdbiosciences.com/colors).
7. Please refer to [www.bdbiosciences.com/us/s/resources](http://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

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