Technical Data Sheet

R718 Mouse Anti-Human ErbB3 (HER-3)

Product Information

Material Number:	751799
Size:	50 µg
Clone:	SGP1
Alternative Name:	ERBB3; ErbB-3; HER3; c-erbB-3; c-erbB3; human epidermal growth factor receptor 3; receptor tyrosine-protein kinase erbB-3
Reactivity:	Tested in Development:Human
Isotype:	Mouse BALB/c IgG1, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The SGP1 monoclonal antibody specifically recognizes human ErbB3 (also known as HER-3), a 160-kDa glycoprotein that is a member of the epidermal growth factor receptor or ErbB family of receptor tyrosine kinases. Other members of the family include the epidermal growth factor receptor (EGFR, ErbB-1, HER1), ErbB-2 (Neu, HER2), and ErbB-4 (HER4). Members of this receptor family mediate the proliferation and differentiation of normal cells. They have a common structure consisting of an extracellular ligand-binding domain, a transmembrane region, and a cytoplasmic region that has sequence homology to tyrosine kinases, which is inactive in ErbB3. ErbB3 is expressed on neurons and in tissues from the digestive, urinary and respiratory tracts, the circulatory system, and female and male reproductive organs. It is overexpressed in a variety of tumors and is undetectable in hematopoietic tissue and cell lines derived from hematopoietic tumors. ErbB3 is able to form heterodimers with other ErbB family members that have active tyrosine kinases. This interaction is able to mediate signal transduction upon binding of ErbB3 to its ligand neuregulin, a cell adhesion molecule that is involved in development of the heart and nervous system.

The antibody was conjugated to BD Horizon Red 718, which has been developed exclusively for BD Biosciences as a better alternative to Alexa Fluor® 700. BD Horizon Red 718 can be excited by the red laser (628 – 640 nm) and, with an Em Max around 718 nm, it can be detected using a 730/45 nm filter. Due to similar excitation and emission properties, we do not recommend using R718 in combination with APC-R700 or Alexa Fluor® 700.

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 to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size
564219	Human BD Fc Block™	50 µg
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
555899	Lysing Buffer	100 mL
349202	Lysing Solution 10X Concentrate	100 mL

Product Notices

1. Researchers should determine the optimal concentration of this reagent for their individual applications.
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. An isotype control should be used at the same concentration as the antibody of interest.
4. 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.
5. Alexa Fluor® is a registered trademark of Life Technologies Corporation.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
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