

# VSIG4 Monoclonal Antibody (JAV4), Super Bright™ 702, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	JAV4
Conjugate	Super Bright™ 702
Excitation/Emission Max	413/702 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2762580

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	-

## Product Specific Information

Description: This JAV4 monoclonal antibody recognizes human V-Set and Immunoglobulin domain containing 4 (VSIG4), also known as Complement Receptor of the Immunoglobulin superfamily (CR1g) or Z391g. There are two variants of human VSIG4 that result from alternative splicing. Isoform 1 is longer and more prevalent than isoform 2, and this JAV4 antibody recognizes both. VSIG4 is a type I transmembrane glycoprotein structurally related to the B7 family of immune regulatory proteins. It contains one complete V-type Ig domain and one truncated C-type Ig domain. VSIG4 is exclusively expressed on tissue resident and tumor infiltrating macrophages. It has been shown to bind complement components C3b and iC3b. This binding inhibits the alternative complement pathway and facilitates phagocytosis of complement-opsonized pathogens. VSIG4 has also been reported to suppress T cell activation, proliferation and IL-2 production thereby playing a role in the maintenance of peripheral T cell tolerance and suppression of established inflammation. Expression of VSIG4 on tumor-infiltrating macrophages suggests its role in immune evasion. Pro-inflammatory stimuli such as TNF and LPS have been reported to down-regulate the expression of VSIG4.

The JAV4 antibody will recognize VSIG4 on cells that have been formaldehyde-fixed and permeabilized. This antibody does not cross-react with mouse or rat VSIG4.

Applications Reported: This JAV4 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This JAV4 antibody has been pre-diluted and tested by flow cytometric analysis of thioglycolate-elicited peritoneal macrophages. This may be used at 5 µL (0.125 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

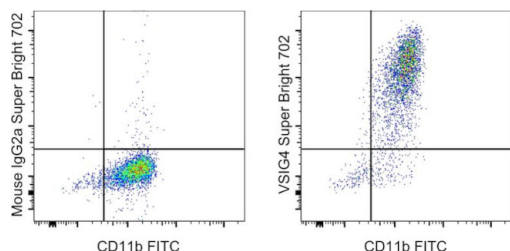
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For VSIG4 Monoclonal Antibody (JAV4), Super Bright™ 702, eBioscience™



### VSIG4 Antibody (67-5757-42) in Flow

Human monocyte-derived macrophages were stained with CD11b Monoclonal Antibody, FITC (Product # 11-0118-42) and Mouse IgG2a kappa Isotype Control, Super Bright 702 (Product # 67-4724-82) (left) or VSIG4 Monoclonal Antibody, Super Bright 702 (right). Total viable cells were used for analysis, as determined by Fixable Viability Dye eFluor 450 (Product # 65-0863-18).

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