Technical Data Sheet

Purified Rat Anti-Mouse IgG2a

Product Information

Material Number:	**553387**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	R19-15
Immunogen:	Pooled BALB/c and C57BL/6 mouse Ig
Isotype:	Rat (LOU) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The R19-15 antibody recognizes an epitope in the CH3 domain of mouse IgG2a, with strong reactivity to the *Igh-I[a]* allotype and weaker reactivity to *Igh-I[b]*. It does not react with other Ig isotypes. Molecular genetic analyses suggest that the *Igh-I[b]* allele, which encodes *IgG2a[b]*, is derived from a locus found in several wild mouse subspecies, but not domestic mice, which encodes the IgG2c isotype.

This antibody is routinely tested by ELISA analysis. Other applications were tested at BD BIosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

ELISA	Routinely Tested

Recommended Assay Procedure:
For the sandwich mouse IgG2a ELISA, biotin-, AKP-, or HRP-conjugated R19-15 mAb (Cat. no. 553388, 553389, or 553391, respectively) is optimal for detection with purified anti-mouse IgG2a R11-89 mAb (Cat. no. 553446) for capture. This pair of anti-mouse IgG2a mAbs can effectively quantitate mouse IgG2a of these mouse *Igh-C* allotypes, in order of sensitivity from highest to lowest: *e, a, j,* and *b*. R19-15 antibody is effective for detection of cell-surface Ig by immunofluorescent staining with flow cytometric analysis. For flow cytometric detection of intracytoplasmic IgG2a, we recommend FITC-conjugated mAb R19-15 (Cat. no. 553390).

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. 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.
4. 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.

References

Martin RM, Silva A, Lew AM. The Igh-1 sequence of the non-obese diabetic (NOD) mouse assigns it to the IgG2c isotype. *Immunogenetics*. 1997; 46(2):167-168. (Biology)
Morgado MG, Cam P, Gris-Liebe C, Cazenave PA, Jouvin-Marche E. Further evidence that BALB/c and C57BL/6 gamma 2a genes originate from two distinct isotypes. *EMBO J.* 1989; 8(11):3245-3251.(Biology)

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