



Anti SLA class Ia allele-specific mouse monoclonal antibody [Clone: X2F6]

Background :

SLA class Ia molecules are the classical class I major histocompatibility complex in swine, which are encoded by three loci, named SLA-1, SLA-2 and SLA-3. They are expressed on the most of the swine tissues, and present peptide antigens to stimulate specific cytotoxic T cells. The class Ia loci are highly polymorphic, and over 150 class Ia alleles are officially designated. Furthermore, several amino acid sequences of many class Ia alleles are highly conserved among the three loci. Therefore, a specific epitope of the monoclonal antibody against an allele is often preserved in a different locus. X2F6 recognizes one of such epitope, which is preserved in various alleles of class Ia SLA loci. The mean fluorescent intensity depends on the number of loci containing the epitope.

Host Species:	Mouse
Form:	Liquid, Phosphate buffered saline containing 50% glycerol
Volume:	100 μ L (0.5 mg/mL)
Specificity:	Recognizes SLA Y102, L103 and L109 in the alpha2 domain of classical class I SLA; haplotype (Hp-)10.0, Hp-35.0 (highly positive), Hp-16.0, Hp-17.0 (intermediately reactive), Hp-43.0 (not reactive)
Cross reactivity:	Swine (Human, Common marmoset, Mouse are not reacted)
Myeloma:	P3X
Immunogen:	SLA-1* 0401/beta2 microglobulin
Clonality:	Monoclonal (clone # X2F6)
Isotype:	IgG2a kappa
Applications:	Flow cytometry (shown in Antibody Characterization) Immunohistochemistry (shown in Antibody Characterization) * Optimal dilutions/concentrations should be determined by each researcher.
Purification method:	Purified from ascites fluid by affinity column (Protein G)
Conjugation:	none
Storage condition:	Store below -20°C *Aliquot to avoid cycles of freeze/thaw

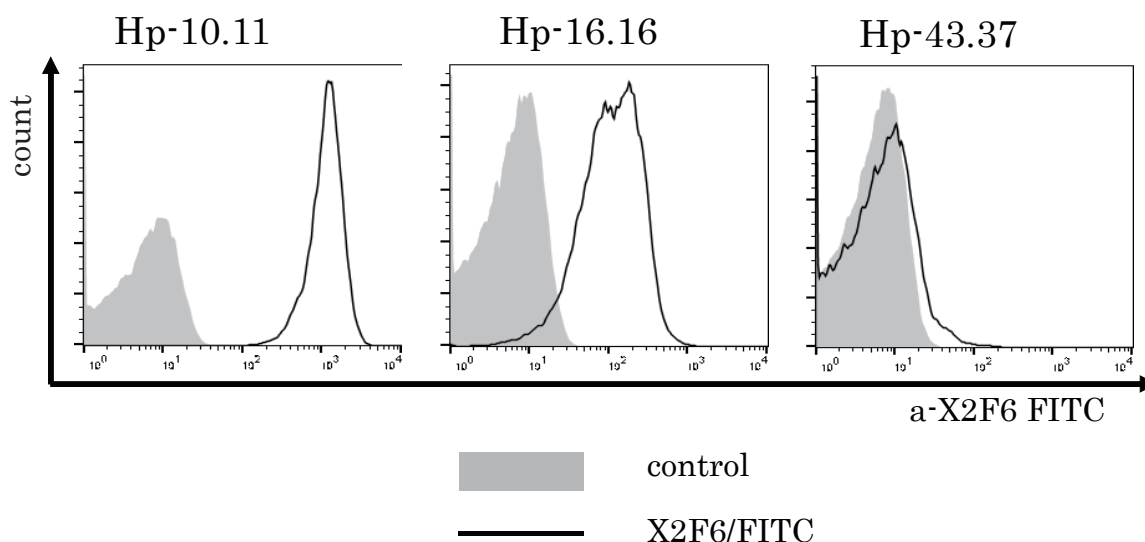
References:

1. Kametani Y, Ohshima S, Miyamoto A, Shigenari A, Takasu M, et al. Production of a locus- and allele-specific monoclonal antibody for the characterization of SLA-1*0401 mRNA and protein expression levels in MHC-defined Microminipigs. PLoS One 2016 Oct 19;11(10):e0164995. doi: 10.1371/journal.pone.0164995.

Example Assay Data:

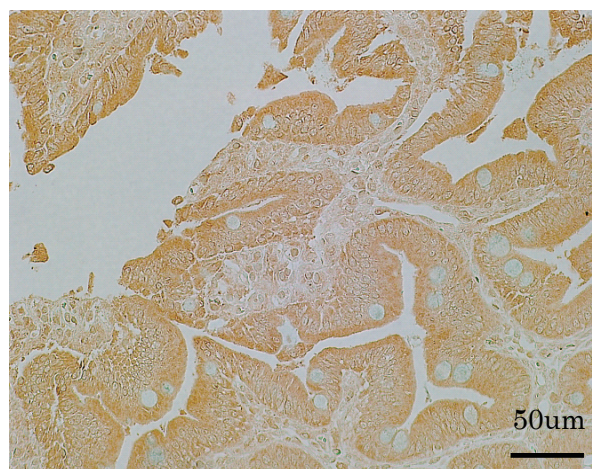
1. Antibody Characterization

1uL of X2F6 (0.1mg/mL) is added to 40uL of cell suspension (usually 1×10^6 cells) in Fisher tube and incubated for 15min at 4°C. After washing the cells with PBS, secondary antibody (anti-mouse IgG2a FITC) diluted to a suitable concentration was added and incubated for 15min at 4°C in a dark place. The mean fluorescent intensity depends on the haplotypes because of the different number of loci containing the epitope. Human, common marmoset, and mouse PBMCs are not reactive with X2F6.



50uL of X2F6 (0.1mg/mL) is added to each slide and incubated overnight at 4°C. After washing the cells with PBS, secondary antibody (anti-mouse IgG-HRP) diluted to a suitable concentration was added and incubated for 1hr at room temperature, following DAB staining.

Nuclei are stained with Methyl green.



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