

# Alexa Fluor® 488 anti-human HLA-G

**Catalog # /** 2279585 / 25 tests  
**Size:** 2279590 / 100 tests

**Clone:** 87G

**Isotype:** Mouse IgG2a, κ

**Immunogen:** HLA-G transfected cells

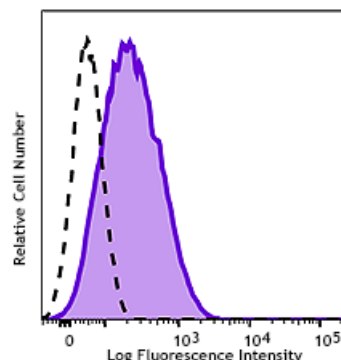
**Reactivity:** Human, Non-human primate, Other

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Workshop Number:** VI M38

**Concentration:** Lot-specific



Human cytotrophoblastic cells (JEG-3 cell line) were stained with HLA-G (clone 87G) Alexa Fluor® 488 (filled histogram) or mouse IgG2a Alexa Fluor® 488 isotype control (open histogram).

## Applications:

**Applications:** Flow Cytometry

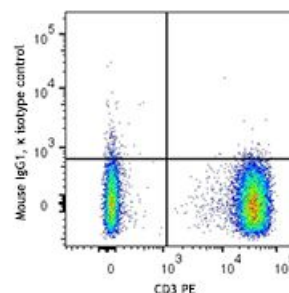
**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

**Application Notes:** 87G mAb reacts with isoforms of HLA-G1 and -G5. Additional reported applications (for the relevant formats) include: restoring HLA-G mediated suppression of allo-T cell proliferation and immunohistochemical staining of frozen tissue sections. Clone 87G is reported not to bind HLA-G in aldehyde fixed samples.<sup>4</sup>

**Application References:**

1. Odum N, et al. 1991. *Eur. J. Immunol.* 21:2121.
2. Lila N, et al. 2001. *P. Natl. Acad. Sci. USA* 98:12150.
3. Lila N, et al. 2002. *Circulation.* 105:1949.
4. Blaschitz A, et al. 2000. *Hum. Immunol.* 61:1074.
5. Balsamo M, et al. 2012. *Eur J. Immunol.* 42:1833. [PubMed](#)



**Description:** HLA-G is a nonclassical MHC class I (MHC-Ib) molecule structurally related to MHC class Ia (HLA-A,B, C). There are seven isoforms of this molecule, including membrane bound HLA-G1, -G2, -G3 and -G4 and soluble HLA-G5, -G6, and -G7. HLA-G is primarily expressed on trophoblast cells. Its expression is also found on thymic epithelial cells, cytokine-activated monocytes, macrophages/dendritic cells during viral infection, and in various tumors. HLA-G exerts its inhibitory functions to regulate immune tolerance via interaction with inhibitory receptors ILT2(CD85j), ILT4(CD85d), and KIR2DL4(CD158d), which is expressed on NK cells, T cells, monocytes, dendritic cells, and B cells. HLA-G is also able to bind CD8 $\alpha$ / $\alpha$ , which may mediate positive and/or negative selection in thymus.

**Antigen** 1. Hunt JS, *et al.* 2005. *FASEB J.* 19:681.  
**References:** 2. Carosella ED, *et al.* 2008. *Blood* 111:4862.