

# Mouse KLRG1 Alexa Fluor® 488-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1151A  
Catalog Number: FAB6944G  
100 µg

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse KLRG1 in flow cytometry.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1151A
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived mouse KLRG1 Glu57-Tyr188 Accession # O88713
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

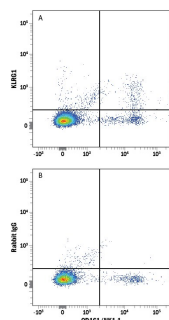
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	See Below

## DATA

### Flow Cytometry



#### Detection of KLRG1 in Mouse Splenocytes by Flow Cytometry.

Mouse splenocytes were stained with Mouse Anti-Mouse CD161/NK1.1 APC-conjugated Monoclonal Antibody (Catalog # [FAB8319A](#)) and either (A) Rabbit Anti-Mouse KLRG1 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # [FAB6944G](#)) or (B) Normal Rabbit IgG Alexa Fluor 488 Control (Catalog # [IC105G](#)). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

KLRG1 (Killer cell Lectin-like Receptor G1), also called MAFA (Mast cell Function Associated), is an inhibitory type II transmembrane glycoprotein of the C-type lectin family, designated CLEC15A (1). Mature mouse KLRG1 consists of a 33 amino acid (aa) cytoplasmic domain with one Immunoreceptor Tyrosine-based Inhibitory Motif (ITIM), a 23 aa transmembrane segment, and a 132 aa extracellular domain (ECD) with one C-type lectin domain (CTLD) (2). Within the ECD, mouse KLRG1 shares 57% and 80% aa sequence identity with human and rat KLRG1, respectively. Alternate splicing generates additional isoforms of mouse KLRG1 that lack either the CTLD or the CTLD, transmembrane segment, and a portion of the cytoplasmic domain (3). KLRG1 is expressed as a 30 - 40 kDa N-glycosylated molecule that forms disulfide-linked homodimers, trimers, and tetramers (4, 5). It is expressed on subpopulations of CD8<sup>+</sup>, CD4<sup>+</sup>, regulatory, and gamma/delta T cells as well as on NK cells (2, 4, 6 - 8). KLRG1 is expressed on T cells found in cord blood, but it is down-regulated postnatally and is subsequently re-expressed on antigen-exposed T cells (7, 9). It is expressed by a greater proportion of CD8<sup>+</sup> T cells in the elderly and by virus-specific CD8<sup>+</sup> T cells during chronic virus infection (10 - 12). KLRG1 binds to E-, N-, and R-Cadherins, triggering ITIM-dependent KLRG1 signaling and inhibition of T cell activation (5, 13, 14). The response is bi-directional, as KLRG1 binding to E-Cadherin on dendritic cells (DC) can induce an anti-inflammatory DC phenotype (increased IL-10 production and decreased IL-6 and TNF-α production) (15).

## References:

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