

## Brilliant Violet 605™ anti-human TLR7 Antibody

<b>Catalog# / Size</b>	376915 / 25 tests
<b>Clone</b>	S18024F
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Toll-like receptor (TLR) 7, CD287
<b>Isotype</b>	Rat IgG2a, $\kappa$
<b>Description</b>	Toll-like receptor (TLR) 7, also known as CD287 is a type 1 transmembrane protein, member of the TLR receptor family. TLR7 is expressed intracellularly in plasmacytoid dendritic cells, myeloid cells, and B lymphocytes and plays an important role in the innate immune response by binding single-stranded RNA (ssRNA). TLR7 signals through MyD88, which leads to the activation and secretion of IFN- $\alpha/\beta$ and other inflammatory cytokines.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a>. For flow cytometric staining, the suggested use of this reagent is 5 <math>\mu</math>L per million cells in 100 <math>\mu</math>L staining volume or 5 <math>\mu</math>L per 100 <math>\mu</math>L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Clone S18024F can be used for blocking R848-activated IL8 cytokine secretion (tested on 293XL/TLR7 cell line) and for intracellular flow cytometry.

## Antigen Details

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<b>Structure</b>	Type 1 transmembrane protein, member of the Toll-like receptor (TLR) family
<b>Distribution</b>	Expressed intracellularly in plasmacytoid dendritic cells, myeloid cells, and B lymphocytes, Monocytes
<b>Function</b>	Pattern recognition receptor that detects single-stranded RNA, induces proinflammatory cytokine production
<b>Interaction</b>	B cells, Dendritic cells
<b>Ligand/Receptor</b>	Single-stranded RNA
<b>Cell Type</b>	B cells, Dendritic cells
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules, Innate Immune Signaling
<b>Gene ID</b>	<a href="#">51284</a>

## Related Protocols

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- [Intracellular Flow Cytometry Staining Protocol](#)

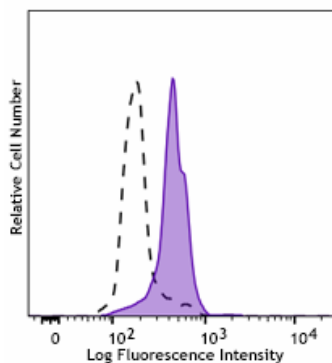
## Other Formats

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PE anti-human TLR7, FITC anti-human TLR7, Brilliant Violet 421™ anti-human TLR7, Ultra-LEAF™ Purified anti-human TLR7, APC anti-human TLR7, TotalSeq™-B1506 anti-human TLR7 Antibody, Brilliant Violet 605™ anti-human TLR7 Antibody

## Product Data

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Human peripheral blood mononuclear cells were surface stained with anti-human CD14 (clone HCD14) Brilliant Violet 421™ and anti-human CD304 (clone 12C2) Brilliant Violet 711™. Cells were then fixed with Fixation Buffer (Cat. No. 420801), permeabilized with Intracellular Staining Permeabilization Wash Buffer (Cat. No. 421002) and intracellularly stained with anti-human TLR7 (clone S18024F) Brilliant Violet 605™ (filled histogram) or rat IgG2a, κ Brilliant Violet 605™ isotype control (open histogram). Data shown were gated on the CD14-negative CD304-positive plasmacytoid dendritic cell population.

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