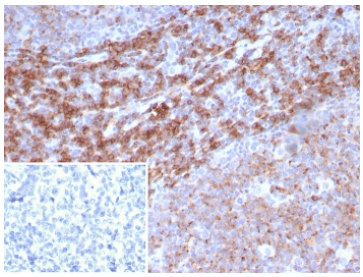
# CD39 Antibody [clone CD39/8162R] (V4119)

| Catalog No. | Formulation | Size |
|---|---|---|
| V4119-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V4119-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V4119SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | CD39/8162R |
| **Purity** | Protein A/G affinity |
| **UniProt** | P49961 |
| **Localization** | Cell surface |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT |
| **Limitations** | This CD39 antibody is available for research use only. |



IHC staining of FFPE human tonsil tissue with CD39 antibody (clone CD39/8162R). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

## Description

CD39 antibody is an important tool for investigating therapeutic pathways in immunology, oncology, and cardiovascular research. The encoded protein, CD39, is an ectoenzyme that regulates the balance between proinflammatory ATP and

immunosuppressive adenosine. By hydrolyzing ATP and ADP into AMP, CD39 shapes the extracellular environment to influence inflammation, immune tolerance, and vascular homeostasis.

Therapeutically, CD39 has become a major target in cancer immunology. Tumor cells often upregulate CD39 as part of an immune evasion strategy, generating adenosine that suppresses T cell and natural killer cell responses. Blocking CD39 activity is under investigation as a method to enhance antitumor immunity and improve outcomes of immune checkpoint therapies. In contrast, boosting CD39 activity may be beneficial in autoimmune disease, transplantation, or ischemic injury where excessive ATP signaling drives pathology.

In cardiovascular medicine, CD39 is considered a protective enzyme against thrombosis. Its activity on endothelial cells reduces platelet aggregation and protects tissues from ischemia-reperfusion damage. In transplantation biology, CD39 has been studied for its role in preventing graft rejection by creating a local adenosine-rich environment. These diverse therapeutic angles highlight the importance of CD39 across multiple biomedical disciplines.

At the structural level, CD39 is a glycosylated transmembrane protein with extracellular domains containing apyrase motifs required for enzymatic function. This design allows it to function efficiently at the cell surface where it interacts directly with circulating nucleotides. Its enzymatic balance with CD73 forms a complete pathway for adenosine generation, reinforcing its role as a therapeutic checkpoint.

The CD39 antibody is widely used in western blotting, immunohistochemistry, immunofluorescence, and flow cytometry to measure expression and localization in both healthy and diseased tissues. These applications enable researchers to evaluate CD39 as a biomarker and therapeutic target. For investigators studying cancer immunotherapy, vascular biology, or autoimmune disease, the CD39 antibody provides a reliable detection reagent. NSJ Bioreagents offers validated antibodies that ensure reproducibility and accuracy in advanced translational research.

## Application Notes

Optimal dilution of the CD39 antibody should be determined by the researcher.

## Immunogen

Recombinant full-length human CD39 protein was used as the immunogen for the CD39 antibody.

## Storage

Aliquot the CD39 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.