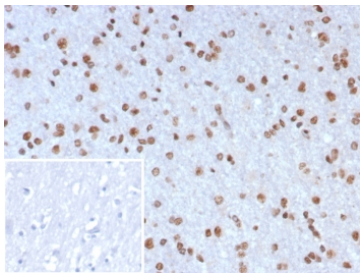
# NEUROG3 Antibody / Neurogenin 3 / NGN3 [clone NGN3/7698] (V4100)

| Catalog No. | Formulation | Size |
|---|---|---|
| V4100-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V4100-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V4100SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | NGN3/7698 |
| **Purity** | Protein A/G affinity |
| **UniProt** | Q9Y4Z2 |
| **Localization** | Nucleus |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT |
| **Limitations** | This NEUROG3 antibody is available for research use only. |



IHC staining of FFPE human brain tissue with NEUROG3 antibody (clone NGN3/7698) 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

This antigen is a transcription factor that interacts with NKX2-2 to regulation transcription of NEUROD1. The neurogenin family of proteins belongs to the basic helix-loop-helix (bHLH) superfamily and consists of Neurogenin 1, Neurogenin 2 and Neurogenin 3 (also designated ngn3). bHLH members are transcriptional regulators that determine cell fate. Neurogenin 3 is expressed in discrete regions of developing neurons and in the embryonic pancreatic islets of

Langerhans. HNF-6 (hepatocyte nuclear factor 6) acts as a positive regulator of Neurogenin 3 by binding to and stimulating the neurogenin gene promoter. Neurogenin 3 is involved in the initial differentiation of the four islets cell types, while a network of transcription factors, including Hlxb9, Isl1, NeuroD, Nkx-2.2, Nkx-6.4, Pax-4, Pax-6, PDX-1 and Mash1, are required for final differentiation. Neurogenin 3 acts upstream of NeuroD in a bHLH cascade. Neurogenin 3 activates the expression of NeuroD at the onset of islet cell differentiation through box sequences E1 and E3 in the NeuroD promoter.

## Application Notes

Optimal dilution of the NEUROG3 antibody should be determined by the researcher.

## Immunogen

A recombinant partial protein (within amino acids 1-200) from the human protein was used as the immunogen for the NEUROG3 antibody.

## Storage

Aliquot the NEUROG3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.