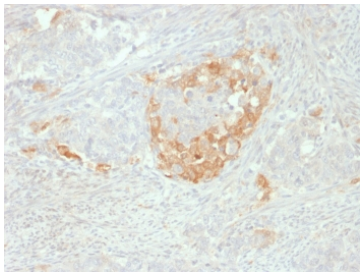
# NSE Antibody / Neuroendocrine Tumor Marker Antibody [clone NSE-P2] (V7731)

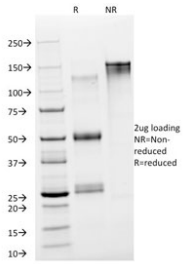
| Catalog No. | Formulation | Size |
|---|---|---|
| V7731-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V7731-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V7731SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

## Bulk quote request

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | NSE-P2 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P09104 |
| **Localization** | Cytoplasmic |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml |
| **Limitations** | This NSE Antibody / Neuroendocrine Tumor Marker Antibody is available for research use only. |



NSE Antibody human neuroendocrine tumor IHC staining. Immunohistochemistry analysis of FFPE human neuroendocrine tumor tissue using NSE Antibody clone NSE-P2 demonstrates cytoplasmic HRP-DAB brown staining in tumor cells consistent with neuroendocrine differentiation, while surrounding stromal cells remain largely negative. The staining pattern highlights tumor cell populations with neuronal or neuroendocrine lineage, supporting its use as a neuroendocrine marker in tissue-based analysis. Heat-induced epitope retrieval was performed using pH 9 Tris-EDTA buffer for 10-20 min prior to staining.




SDS-PAGE analysis of purified, BSA-free NSE antibody as confirmation of integrity and purity.

## Description

Neuron-specific enolase (NSE), also known as Gamma-enolase or ENO2, is a glycolytic enzyme predominantly expressed in neurons and neuroendocrine cells, where it functions as a key marker of neuroendocrine differentiation. While it participates in cellular energy metabolism, NSE is most widely recognized for its diagnostic value in identifying cells of neuroendocrine lineage. In tissue-based studies, NSE is detected as cytoplasmic staining within neurons and neuroendocrine cells, providing a reliable indicator of cellular origin. NSE Antibody reagents are therefore extensively used in cancer and neurobiology research to evaluate neuroendocrine differentiation and tumor phenotype.

NSE antibody, also referred to as ENO2 antibody or Gamma-enolase antibody in the literature, recognizes a cytoplasmic protein with highly enriched expression in neuronal and neuroendocrine tissues. The NSE Antibody clone NSE-P2 is specifically suited for studies focused on neuroendocrine tumor biology, where detection of ENO2 expression supports identification of tumors arising from or exhibiting neuroendocrine differentiation. In normal tissues, NSE expression is prominent in central nervous system structures such as cerebellum and cerebral cortex, as well as in dispersed neuroendocrine cell populations, while most non-neuroendocrine tissues show minimal expression, creating a strong contrast for lineage identification.

In cancer, NSE expression is strongly associated with neuroendocrine tumors and malignancies with neuroendocrine features. High levels of cytoplasmic NSE staining are commonly observed in small cell carcinoma, neuroblastoma, and other tumors of neuroendocrine origin, where it serves as a widely used tumor marker. NSE expression may also be detected in subsets of carcinomas that acquire neuroendocrine differentiation, providing additional insight into tumor heterogeneity and phenotype. The ability to identify ENO2-positive tumor cells supports studies of tumor classification, differentiation state, and disease progression.

Compared to broader neuronal markers, NSE provides a robust and widely recognized indicator of neuroendocrine lineage, particularly in tumor-focused applications. Clone NSE-P2 enables consistent detection of Neuron Specific Enolase across tissue samples and experimental systems, supporting reproducible analysis of neuroendocrine marker expression. Its application in cancer research allows detailed evaluation of neuroendocrine differentiation within tumor tissues and cellular models, complementing other lineage-specific markers in multi-parameter studies.

This antibody targets Neuron Specific Enolase in research applications requiring sensitive and interpretable detection of neuroendocrine markers, making it well suited for studies of neuroendocrine tumors, neuronal differentiation, and cancer-related expression profiling.

For detection of neuron-specific enolase (NSE), also known as gamma enolase, across tissue types, see our NSE antibody.

## Application Notes

Optimal dilution of the NSE Antibody / Neuroendocrine Tumor Marker Antibody should be determined by the researcher.

## Immunogen

Amino acids 416-433 of human Neuron-specific Enolase were used as the immunogen for this NSE antibody.

## Storage

Store the NSE antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

Neuron Specific Enolase antibody, ENO2 antibody, Gamma-enolase antibody, neuroendocrine marker antibody, NSE tumor marker antibody