

Neuron Specific Enolase (NSE), IHC-Paraffin Staining Report

Target Antigen:	Neuron Specific Enolase (NSE)
Catalog or ID #:	IHC2014
Host and Isotype:	Rabbit IgG ₁ , Kappa
Clone	BBS/NC/VI-H14
Purity and Method:	Gamma-gamma enolase purified from human brain.
Concentration and Quantity:	Prediluted
Storage Conditions:	2-4.0°C refrigerated
Species Reactivity:	Human. Reactivity with other species has not been confirmed.
IHC-Paraffin Fixation Tested:	10% neutral Buffered Formalin
IHC-Paraffin Titer:	N/A
IHC-Paraffin Pretreatment(s):	Heat Induced Epitope Retrieval (HIER): Recommend: no HIER or Citrate Buffer, pH 6.0 or TE Buffer, pH 9.0. Over staining can be achieved if EDTA, pH 8.0 is used.
IHC-Paraffin Protocol:	IHC-Select, HRP-DAB (Brief Outline): Blocking Reagent for 5 min. Primary Antibody (or Negative Control Reagent) for 10 min. Biotinylated Secondary Antibody for 10 min. Streptavidin-HRP for 10 min. DAB for 10 min. Hematoxylin for 1 min.
Positive Tissue(s):	Pancreas: Langerhans islets and some isolated cells within exocrine tissue.
Subcellular Location(s):	Reacts with human α -enolase. It does not cross-react with the α nor β -subunits of NSE. Cytoplasmic staining.
Negative Tissue(s):	Non-GI Tract nor Brain.
Comments and References:	Staining is as expected since specific immunoreactivity was restricted to Langerhan's islets cells. In normal tissues, most neurons and their axonal and dendritic processes stain strongly positive for NSE, with the exception of Purkinje's cells. Schwann's cells, cells of the adrenal medulla and paraganglia also contain NSE. Endocrine cells of the skin (Merkel's cells), respiratory and GI tract epithelium, pituitary parathyroid, pancreatic islets, and C cells of thyroid all stain positive for NSE. NSE has been demonstrated in ganglioneuromas, neuroblastomas, Schwannomas and malignant



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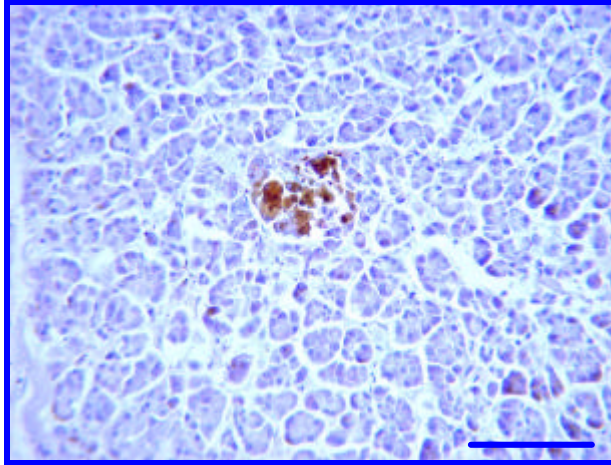
	<p>melanomas. It is also present in pheo-chromocytomas and paragangliomas.</p> <p>Carcinoids, medullary thyroid carcinomas, pituitary adenomas, and endocrine tumors of the pancreas and GI tract all show positive immunoreactivity for NSE</p> <p>NSE is found in neuroendocrine carcinoma of the skin (Merkel's cell tumor) and small cell carcinoma of the lung. A number of non-neuronal and non-endocrine tumors may also express NSE, including meningiomas, astrocytomas, renal cell carcinomas, carcinoma and fibroadenoma of the breast, carcinoma of the ovary and malignant lymphomas. NSE positivity should not be relied upon entirely as evidence of the neuronal or neuroendocrine differentiation of a given neoplasm.</p>
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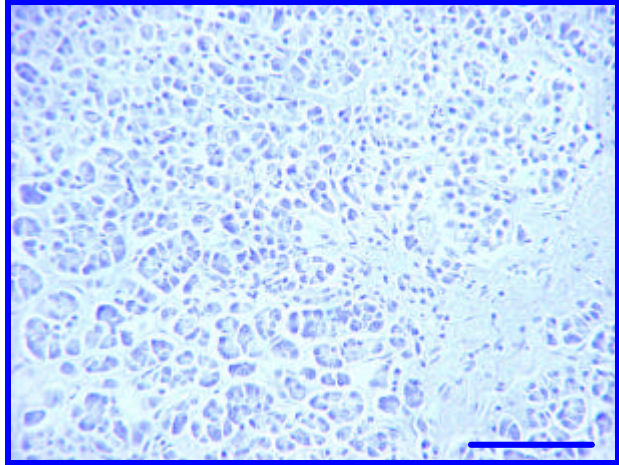
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IHC – Paraffin Staining Examples:

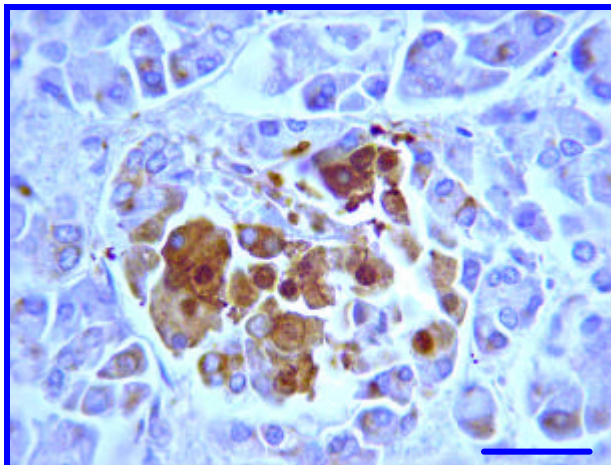
Pictures of Optimal Staining Without Epitope Retrieval: Human Pancreas



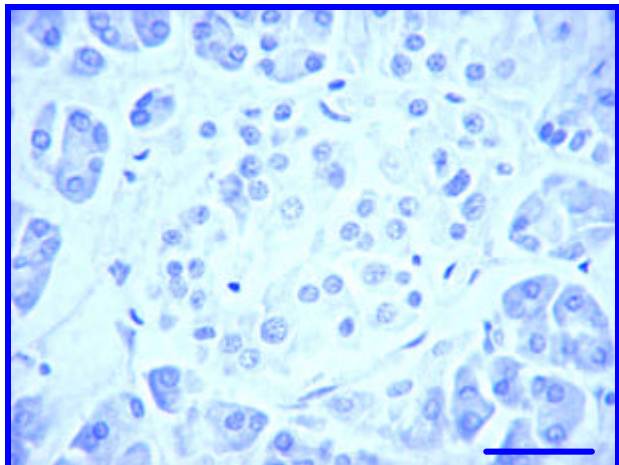
NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue without Epitope retrieval. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 100µm.



Negative Control staining of Pancreas. Tissue without Epitope retrieval. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 100µm.



NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue without Epitope retrieval. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 25µm.



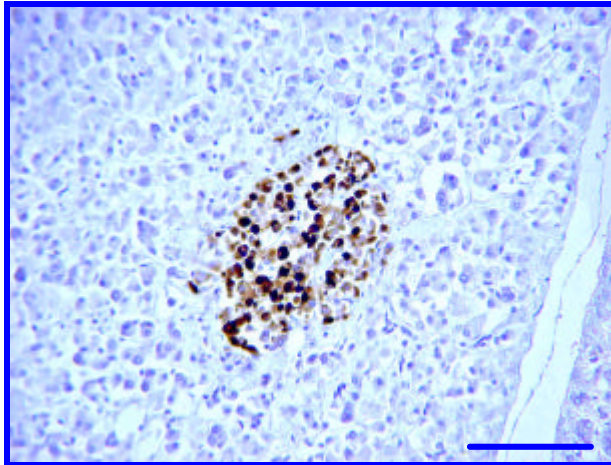
Negative Control staining of Pancreas. Tissue without Epitope retrieval. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 25µm.



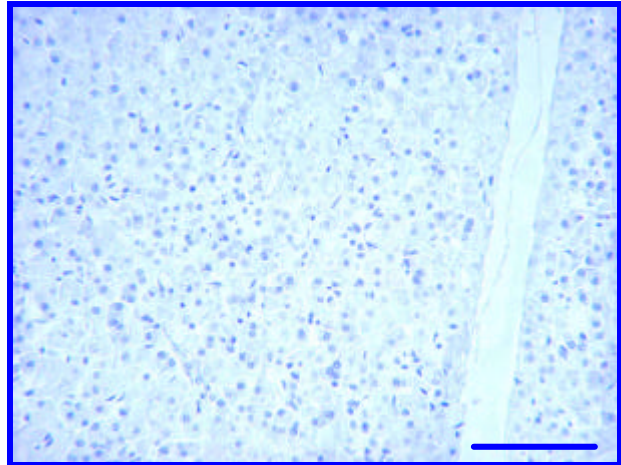
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IHC – Paraffin Staining Examples:

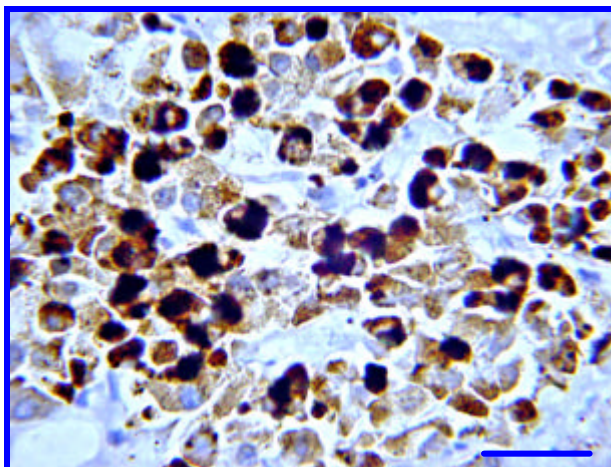
Pictures of Over Staining With Citrate Buffer Epitope Retrieval: Human Pancreas



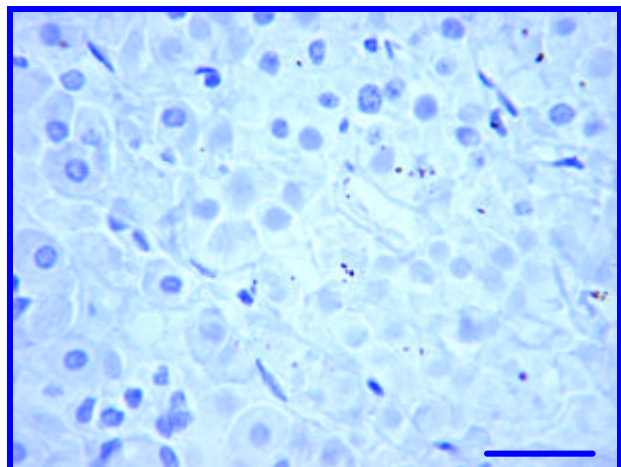
NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with Citrate Buffer, pH 6.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 100 μ m.



Negative Control staining of Pancreas. Tissue pretreated with Citrate Buffer, pH 6.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 25 μ m.



NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with Citrate Buffer, pH 6.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 25 μ m.



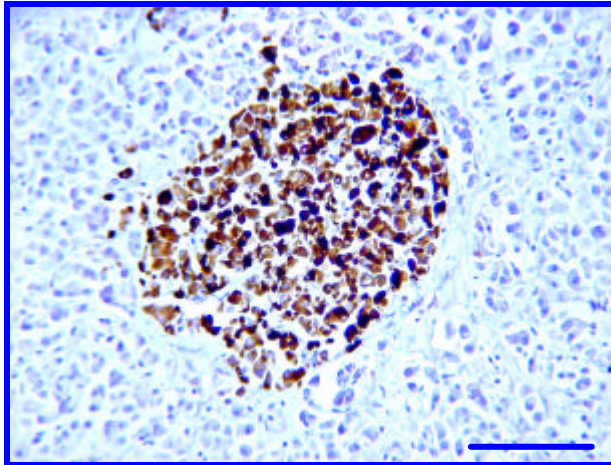
Negative Control staining of Pancreas. Tissue pretreated with Citrate Buffer, pH 6.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 25 μ m.



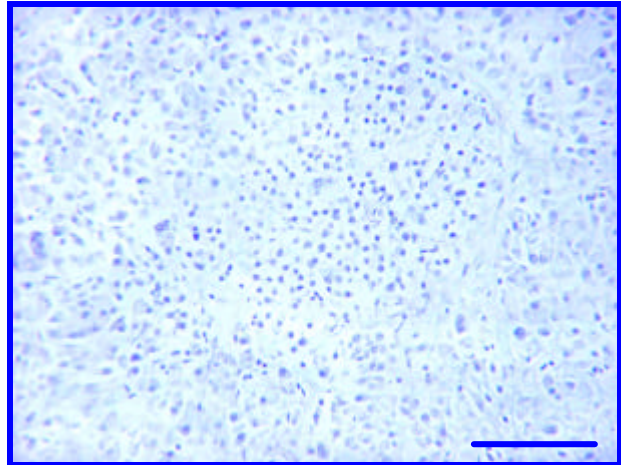
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IHC – Paraffin Staining Examples:

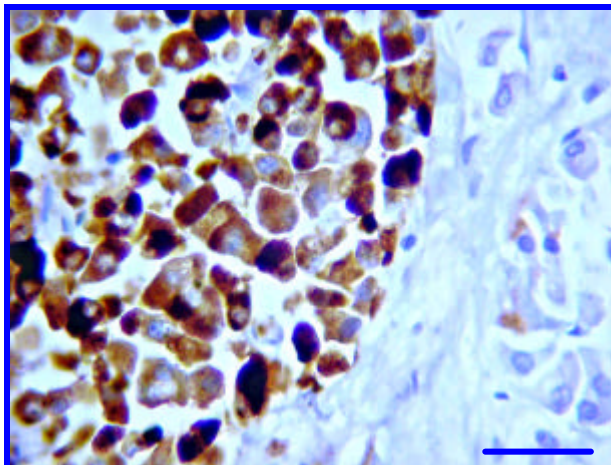
Pictures of Optimal Staining TE Buffer Epitope Retrieval: Human Pancreas



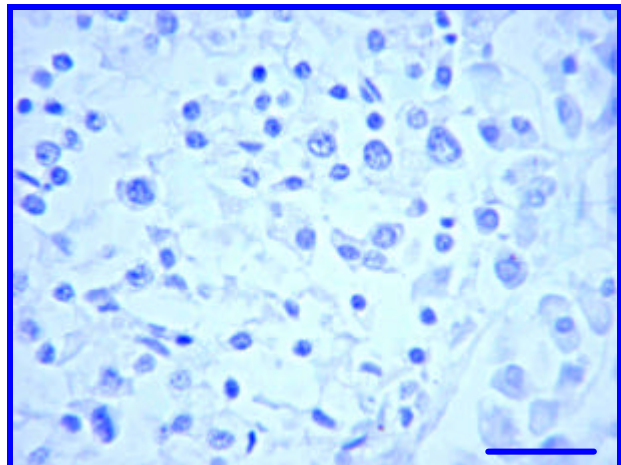
NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with TE Buffer, pH 9.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 100 μ m.



Negative Control staining of Pancreas. Tissue pretreated with TE Buffer, pH 9.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 100 μ m.



NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with TE Buffer, pH 9.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown). Bar = 25 μ m.



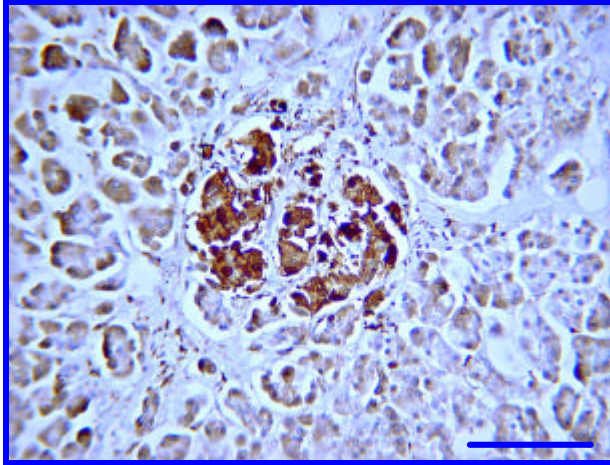
Negative Control staining of Pancreas. Tissue pretreated with TE Buffer, pH 9.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No background staining is detected. Bar = 25 μ m.



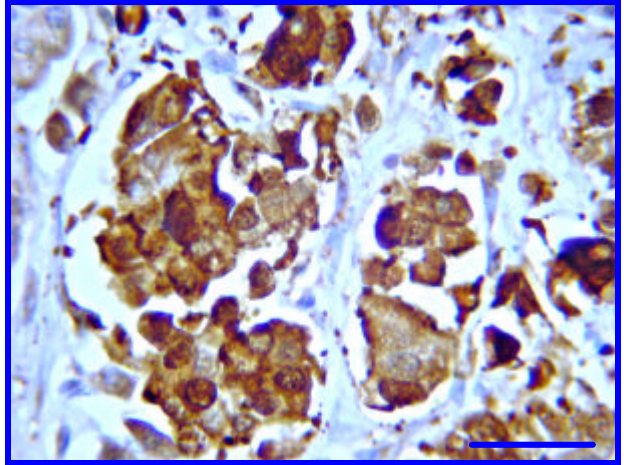
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IHC – Paraffin Staining Examples:

Pictures of Over Staining With EDTA Epitope Retrieval: Human Pancreas



NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with EDTA, pH 8.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown) with diffusive background. Bar = 100 μ m.



NSE (IHC2014, Clone: BB/NC/VI14) staining of Pancreas. Tissue pretreated with EDTA, pH 8.0. Prediluted polyclonal antibody, IHC-Select Detection with HRP-DAB. Langerhans islets cells stain very strongly (brown) with diffusive background. Bar = 25 μ m.