

DISEASE RESEARCH OVERVIEW AND TABLE OF STAINS

The table below depicts some of the most commonly used stains for detecting various categories of markers in Alzheimer (AD), Parkinson (PD), Multiple Sclerosis (MS), Amyotrophic Lateral Sclerosis (ALS), Huntington (HD) and Stroke research.

| Stain | AD | PD | MS | ALS | HD | Stroke |
|--|-------|------|------|------|------|--------|
| 4H7H7 Huntington Disease Aggregates | | | | | AG | |
| 6E10 β -Amyloid (1-17) | A | | | | | |
| 82E1 β -Amyloid (1-16) | A | | | | | |
| AChE | cN | cN | cN | cN | cN | cN |
| Amino CuAg | Dg | Dg | Dg | Dg | Dg | Dg |
| ApoTag 4 | CD | CD | CD | CD | CD | CD |
| A β (1-40) | A | | | | | |
| A β (1-42) | A | | | | | |
| α -Synuclein | | cN | | | | |
| α -Synuclein (pSer129) | | cN | | | | |
| α -Synuclein-Human 4B12 (103-108) | | cN | | | | |
| α -Synuclein 211 (121-125) | | cN | | | | |
| Autometallography | MetD | MetD | MetD | MetD | MetD | MetD |
| c-Fos | act | act | act | act | act | act |
| Calbindin | cN | cN | cN | cN | cN | cN |
| Calretinin | cN | cN | cN | cN | cN | cN |
| Campbell-Switzer | A, pT | | | | | |
| Caspase-3-activated | CD | CD | CD | CD | CD | CD |
| Caspase-9-activated | CD | CD | CD | CD | CD | CD |
| CD11b | G | G | G | G | G | G |
| CD68 | rG | rG | rG | rG | rG | rG |
| ChAT | cN | cN | cN | cN | cN | cN |
| Congo Red | A, pT | | | | | |
| CuAg | Dg | Dg | Dg | Dg | Dg | Dg |
| DARPP32 | | cN | | | | |
| EM-48 | | | | | AG | |
| Ferritin | cN | cN | cN | cN | cN | cN |
| GABA | | | | | | cN |
| GFAP | Ast | Ast | Ast | Ast | Ast | Ast |
| Glutamate | | | | | cN | |
| H&E | cN | cN | cN | cN | cN | cN |
| Human Nuclear Protein (HuNu) | cN | cN | cN | cN | cN | cN |
| Huntingtin | | | | | cN | |
| Iba1 | G | G | G | G | G | G |
| Ischemia Contrast | | | | | | plnt |
| Ki-67 | iN | iN | iN | iN | iN | iN |
| Nestin | rAst | rAst | rAst | rAst | rAst | rAst |
| NeuN | cN | cN | cN | cN | cN | cN |
| Nissl | cN | cN | cN | cN | cN | cN |
| Parvalbumin | | | | | | cN |
| Perls | MetD | MetD | MetD | MetD | MetD | MetD |
| PSA-NCAM | iN | iN | iN | iN | iN | iN |
| Reactive Microglia | rG | rG | rG | rG | rG | rG |
| S100 beta | Ast | Ast | Ast | Ast | Ast | Ast |
| Serotonin | cN | cN | cN | cN | cN | cN |
| Serotonin Transporter | cN | cN | cN | cN | cN | cN |
| SMI-99 myelin basic protein | myl | myl | myl | myl | myl | myl |
| Solochrome | myl | myl | myl | myl | myl | myl |
| Somatostatin | cN | cN | cN | cN | cN | cN |
| Substance P | cN | cN | cN | cN | cN | cN |
| Synaptophysin | cN | cN | cN | cN | cN | cN |
| Tau 39E10 (189-205) | pT | | | | | |
| Tau 46 (403-441) | pT | | | | | |
| Tau 5 (210-230) | pT | | | | | |
| Tau AT100 (pSer212/pSer214) | pT | | | | | |
| Tau AT180 (pThr231; PHF-6) | pT | | | | | |
| Tau AT181 (pThr181) | pT | | | | | |
| Tau AT8 (pSer202,pThr205) | pT | | | | | |
| Tau CP-13 (pSer202) | pT | | | | | |
| Tau HT7 (159-163) | pT | | | | | |
| Tau MC1 (312-322) | pT | | | | | |
| Tau PHF-1 (pSer396,404) | pT | | | | | |
| Tau PHF-13 (pSer396) | pT | | | | | |
| Tau (pSer422) | pT | | | | | |
| Thioflavin S | pT | | | | | |
| Tryptophan Hydroxylase | | cN | | | | |
| Tyrosine Hydroxylase | | cN | | | | |
| VAcHT | | | | cN | | |
| Weil-Myelin | myl | myl | myl | myl | myl | myl |

CODE LEGEND:

A = amyloid

act = activity marker

AG = aggregates

Ast = astrocytes

CD = cell death

cN = chemo-specific neuron

Dg = Degeneration

G = microglia

iN = immature Neurons

MetD = Metal Detection

myl = myelin

plnt = physical integrity

pT = phosphorylated

Tau- tangles

rAst = reactive Astrocytes

rG = reactive marker