

Fluid biomarkers in neurodegenerative disorders

Fluid biomarkers are measures of physiological or pathogenic processes detected in biological fluids such as cerebrospinal fluid (CSF) and plasma. They have become an integral part of the clinical diagnosis and prognosis of neurodegenerative disorders and transformed how therapeutic effects are monitored in clinical trials. The use of fluid biomarkers is particularly

important in the early diagnostic of neurological diseases. For example, CSF analysis can reveal changes in the ratio levels of amyloid beta (A β)42/40 or total/phosphorylated tau which might indicate the development of Alzheimer's disease (AD) in a patient. Changes in the levels of neurofilament light are also emerging as a broad biomarker of neurodegeneration across a wide range of diseases.

Explore key biomarkers in neurodegeneration

Protein misfolding pathology

Tau
Beta amyloid 1-42/40
Alpha-synuclein
TDP43

Neuronal injury

Neurofilament light
VILIP1
S100B
NSE

Synaptic damage

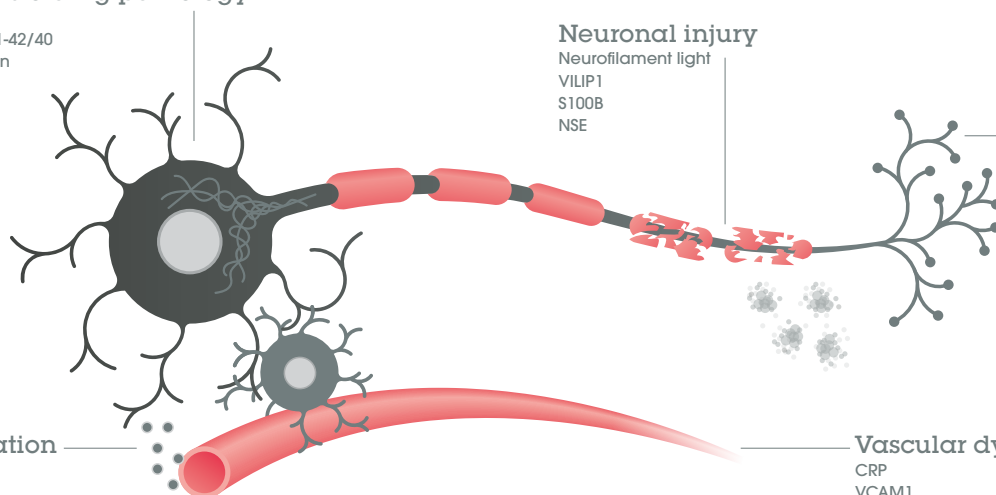
SNAP25
Neurogranin
GAP43
Synaptophysin
SV2A
Synapsin1

Inflammation

IL-6
IFN- γ
MCP-1
TNF α
GFAP

Vascular dysregulation

CRP
VCAM1
ICAM1
FLT1
VEGFA



Recombinant monoclonal antibodies and SimpleStep ELISA® kits

Get reproducible, batch-to-batch consistency using SimpleStep ELISA® kits and recombinant monoclonal antibodies for your biomarker research. Here we've highlighted some of our key products to support your research.

Synaptic damage

	SimpleStep Elisa® kit	Antibody
SNAP25	ab256394	ab109105
		ab108990
Neurogranin	ab277083	ab217672
Neurogranin truncated P75	ab277084	
GAP-43		ab75810
		ab134075
Synaptophysin		ab32127
		ab52636
SV2A		ab254351
Synapsin-1		ab254349

Neuronal injury

	SimpleStep Elisa® kit	Antibody
Neurofilament light		ab223343
		ab273441
VILIP-1		ab180141
S100b	ab234573	ab52642
		ab115803
NSE	ab217778	ab180943
		ab79757

Protein misfolding markers

	SimpleStep Elisa® kit	Antibody
Tau	ab210972	ab76128 ab254256
Tau tangles		ab246808
Tau pT231		ab151559
Tau pS404		ab92676
Tau pT181		ab232849 ab223192
Beta amyloid 1-40	ab193692	ab76317
Beta amyloid 1-42		ab201061 ab180956
Alpha-synuclein	ab260052	ab138501 ab212184
Alpha-synuclein aggregates		ab209538
Alpha-synuclein pS129		ab51253
TDP-43		ab109535 ab190963 ab133547

Inflammation

	SimpleStep Elisa® kit	Antibody
TREM2	ab224881	ab209814
YKL-40	ab255719	ab255297
IL1-β	ab229384	ab216995 ab33774
IL-6	ab178013	ab233706 ab214429
IL-8	ab214030	ab110727 ab235584
IFN-γ	ab174443 ab236895 (High Sensitivity)	ab231036
MCP-1/CCL2	ab179886	ab214819
Eotaxin	ab185985	ab133604
CX3CL1/ Fractalkine	ab192145	
TNF-α	ab181421 ab229399 (CatchPoint)	ab215188 ab183218
GFAP	ab223867	ab68428 ab207165 ab33922
TGF-β		ab215715 ab170874

Vascular dysregulation

	SimpleStep Elisa® kit	Antibody
CRP	ab260058 ab278042 (Fluorescent)	ab32412 ab207756
VCAM1/CD106	ab223591	ab134047 ab174279
ICAM1/CD54	ab174445 ab229383 (CatchPoint)	ab53013 ab109361
Flt-1/sVEGF-R1	ab195210	ab32152
VEGF-A	ab222510	ab52917

Pharmacodynamic biomarkers

	SimpleStep Elisa® kit	Antibody
LRKK2		ab133474 ab133518 ab133475
LRKK2 pS1292		ab133450 ab203181
Rab8	ab255718	ab188574 ab241061
Rab8 pT72		ab230260
Rab10	ab255717	ab237703 ab181367
Rab10 pT73		ab230261 ab241060
Rab12 pS106		ab256487