

AXOL

Antibody staining guide

We’re frequently asked for recommendations on antibodies suitable for use with axoCells™.

As part of our internal quality control processes and ongoing research, we routinely validate antibodies and are happy to share those that perform reliably.

The list is organised by cell type and includes key details such as supplier, catalogue number, host species, recommended dilution, and target, everything you need to confidently reproduce our ICC results in your own lab.

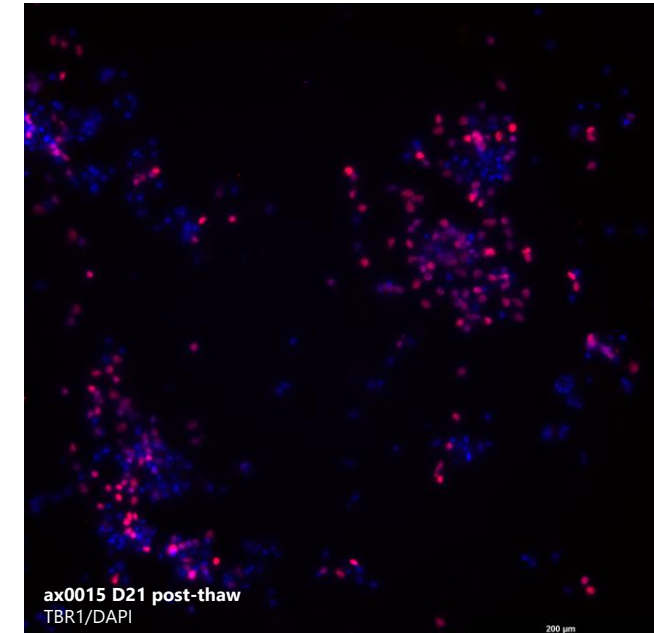
If you have any top recommendations of your own, we’d love to hear from you. Please share them with us at support@axolbio.com.

axoCells™ human iPSC-derived neural stem cells

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D3 post-thaw)	Comments
FOXG1	Abcam	ab18259	Rabbit	1:400		Forebrain NSCs
FOXG1	Abcam	ab196868	Rabbit	1:100		Forebrain NSCs
FOXG1	Everest Biotech	EB05608	Goat	1:200	Yes	Forebrain NSCs
NESTIN	Nordic-MUBio	MUB1302P	Mouse	1:100	Yes	General NSCs
NESTIN	Abcam	ab22035	Mouse	1:100		General NSCs
SOX1	R&D Systems	AF3369	Goat	1:50	Yes	NSCs
PAX6	Abcam	ab195045	Rabbit	1:200	Yes	Dorsal Neural Tube
TUJ1	Abcam	ab78078	Mouse	1:200	Yes	Neural Marker
KI67	Abcam	ab15580	Rabbit	1:200		Proliferation Marker/nuclear

axoCells™ cortical excitatory neurons

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D21 post-thaw)	Comments
BCL11B (CTIP2)	Abcam	ab240636	Rabbit	1:100	Yes	Cortical Layer Marker
TBR1	Abcam	ab183032	Rabbit	1:100	Yes	Cortical Marker
Synapsin	Abcam	ab254349	Rabbit	1:500		Pre-Synaptic Marker
VGLUT2	Abcam	ab216463	Rabbit	1:250		Glutamatergic Neurons
Calbindin	Thermo Fisher Scientific	MA5-41211	Rabbit	1:100		GABAergic Interneurons
GABA	MilliporeSigma	A2052	Rabbit	1:100		GABAergic Identity Marker
GFAP	Abcam	ab194324	Rabbit	1:50	Yes	Astrocyte Marker
OLIG2	Abcam	ab109186	Rabbit	1:100	Yes	Motor Neuron and Oligodendrocyte marker
MAP2	Abcam	ab183830	Rabbit	1:500	Yes	Neural Cytoskeletal Marker
TUJ1	Abcam	ab78078	Mouse	1:200	Yes	Neural
CUX1	Abcam	ab54583	Mouse	1:200	Yes	Cortical Marker



axoCells™ human iPSC-derived inhibitory interneuron progenitors

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D3 post-thaw)	Comments
GAD65	Abcam	ab239372	Rabbit	1:50	Yes	GABAergic Synapse Marker
TTF1	Abcam	ab227652	Rabbit	1:25	Yes	Neurodevelopmental Marker
GABA	MilliporeSigma	A2052	Rabbit	1:250	Yes	GABAergic Identity Marker
SOX1	R&D Systems	AF3369-SP	Goat	1:100	Yes	NSCs
PAX6	Abcam	ab195045	Rabbit	1:100	Yes	Dorsal Neural Tube
OCT4	Abcam	ab181557	Rabbit	1:250		iPSC Marker
NESTIN	Abcam	ab22035	Mouse	1:100	Yes	General NSCs
NESTIN	Nordic-MUBio	MUB1302P	Mouse	1:100		General NSCs
FOXG1	Everest Biotech	EB05608	Goat	1:200		Forebrain NSCs
FOXG1	Abcam	ab18259	Rabbit	1:400	Yes	Forebrain NSCs

axoCells™ human iPSC-derived mature inhibitory interneurons

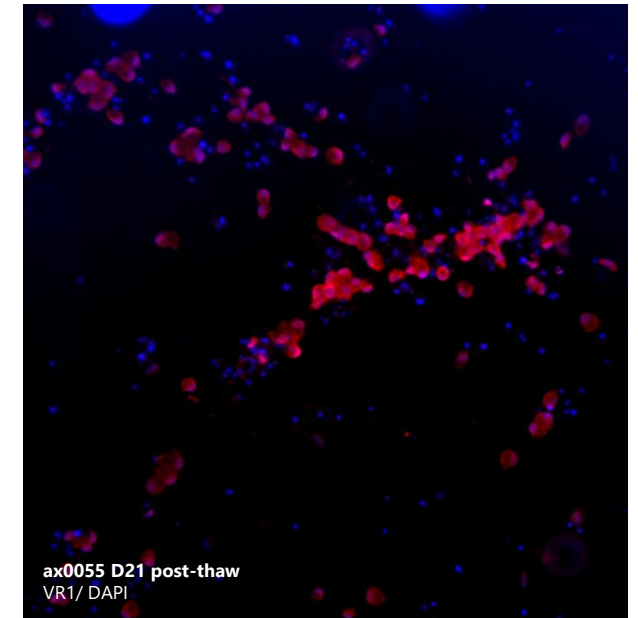
Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D20 post-thaw)	Comments
Tyrosine Hydroxylase	Abcam	ab137869	Rabbit	1:100	Yes	Dopaminergic Neuron Marker
GAD67	Sigma Aldrich	MAB5406	Rabbit	1:100		GABAergic Synapse Marker
Somatostatin	Thermo Fisher Scientific	MA5-17182	Mouse	1:200	Yes	GABAergic Interneurons
TTF1	Abcam	ab227652	Rabbit	1:25	Yes	Neurodevelopmental Marker
GABA	MilliporeSigma	A2052	Rabbit	1:250	Yes	GABAergic Identity Marker
Parvalbumin	Abcam	ab11427	Rabbit	1:250	Yes	GABAergic Interneurons
SOX1	R&D Systems	AF3369-SP	Goat	1:100	Yes	NSCs
PAX6	Abcam	ab195045	Rabbit	1:100	Yes	Dorsal Neural Tube
OLIG2	Abcam	ab109186	Rabbit	1:100	Yes	Motor Neuron and Oligodendrocyte Marker
NKx2.1	Abcam	ab76013	Rabbit	1:250		MGE Interneuron Identity
MAP2	Abcam	ab183830	Rabbit	1:500	Yes	Neural Cytoskeletal Marker
FOXG1	Everest Biotech	EB05608	Goat	1:200		Forebrain NSCs
FOXG1	Abcam	ab18259	Rabbit	1:400	Yes	Forebrain NSCs

axoCells™ human iPSC-derived motor neurons

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D13 post-thaw)	Comments
TUJ-1	Abcam	ab78078	Mouse	1:200	Yes	Neural Marker
HB9	Abcam	ab221884	Rabbit	1:200	Yes	Motor Neuron Identity
ChAT	Sigma Aldrich	AB144P	Goat	1:200	Yes	Cholinergic Neuron
Islet-1	Abcam	ab86501	Mouse	1:200	Yes	Motor Neuron Identity
SMI-32	Enzo Life Sciences	ENZ-ABS219-0100	Mouse	1:200	Yes	Neurofilament H

axoCells™ human iPSC-derived sensory neurons

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D21 post-thaw)	Comments
TRPV1	Abcam	ab3487	Rabbit	1:200	Yes	Sensory Functional Marker
Nav 1.7	Abcam	ab65167	Rabbit	1:200		Sensory Marker
Nav 1.7	Alomone Labs	ASC-008	Rabbit	1:200	Yes	Sensory Marker
Nav 1.8	Abcam	ab93616	Mouse	1:200	Yes	Sensory Maturity Marker
TUJ1	Abcam	ab78078	Mouse	1:200	Yes	Neural Marker
BRN3A	Strattech	BS-3669R-BSS	Rabbit	1:50		Nucleus/cytoplasm
PRPH	Abcam	ab246502	Rabbit	1:100		Peripheral Neuron Marker



axoCells™ human iPSC-derived cardiomyocytes

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D14 post-thaw)	Comments
Connexin 43 (GJA1)	Abcam	ab217676	Rabbit	1:200		Gap Junction Marker
Troponin T	Abcam	ab8295	Mouse	1:100	Yes	Generic Cardiomyocyte Marker
MLC2V	Abcam	ab79935	Rabbit	1:100	Yes	Ventricular Marker
MLC2A	Synaptic Systems	311 011	Mouse	1:100	Yes	Atrial Marker
IRX4	Thermo Fisher Scientific	PA597879	Rabbit	1:500	Yes	Ventricular Marker
ANP	R&D Systems	AF3366	Goat	1:40		Atrial Marker
Troponin I	Abcam	ab10231	Mouse	1:100		Cardiac Maturity Marker

axoCells™ human iPSC-derived microglia

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D7 post-thaw)	Comments
TMEM119	Abcam	ab185333	Rabbit	1:100	Yes	Microglia
IBA1	Alpha Laboratories	019-19741	Rabbit	1:500	Yes	"Macrophage lineage"/Microglia
P2RY12	Merck/Atlas	HPA014518	Rabbit	1:50	Yes	Microglia
CX3CR1	Thermo Fisher Scientific	702321	Rabbit	1:250	Yes	Microglia

axoCells™ human iPSC-derived astrocytes

Antibody Target	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody (D3 post-thaw)	Comments
GFAP	Abcam	ab7260	Rabbit	1:1000		Astrocyte/Radial Glial
GFAP	Abcam	ab194324	Rabbit	1:50	Yes	Astrocyte/Radial Glial
NESTIN	Abcam	ab22035	Mouse	1:100		NSCs
NESTIN	Nordic-MUBio	MUB1302P	Mouse	1:100	Yes	NSCs
EAAT1	Abcam	ab240235	Rabbit	1:200		Astrocytes
EAAT1	Abcam	ab41751	Rabbit	1:200	Yes	Astrocytes
A2B5	Abcam	ab53521	Mouse	1:2000	Yes	Oligodendrocyte
S100	Abcam	ab109384	Rabbit	1:100		Mature Astrocytes
S100	Abcam	ab11428	Rabbit	1:100	Yes	Mature Astrocytes
ALDH1	Abcam	ab56777	Mouse	1:100	Yes	Mature Astrocytes
AQP4	Abcam	ab81355	Rabbit	1:100	Yes	Mature Astrocytes
TUJ1	Abcam	ab78078	Mouse	1:200	Yes	Neural
EAAT2	Abcam	ab205248	Rabbit	1:200		Glial Marker

Secondary antibodies

Antibody Targets	Supplier	Catalog No	Host	Recommended Dilution	Axol QC Antibody	Comments
Alexa Fluor 488 Donkey Anti Mouse IgG	Thermo Fisher Scientific	A21202	Donkey	1:500		Green (488)
Donkey Anti-Rabbit IgG 488	Abcam	ab150073	Donkey	1:500	Yes	Polyclonal, Green (488)
Alexa Fluor 594 Donkey Anti Mouse IgG	Thermo Fisher Scientific	A21203	Donkey	1:500		Red (594)
Donkey Anti-Mouse IgG 594	Abcam	ab150108	Donkey	1:500	Yes	Polyclonal, Red (594)
Alexa Fluor 488 Donkey Anti Rabbit IgG	Thermo Fisher Scientific	A21206	Donkey	1:500		Green (488)
Alexa Fluor 488 Donkey Anti Goat IgG	Thermo Fisher Scientific	A11055	Donkey	1:500		Green (488)
Donkey Anti-Goat IgG 488	Abcam	ab150129	Donkey	1:500	Yes	Polyclonal, Green (488)
Donkey Anti-Goat IgG 594	Abcam	ab150132	donkey	1:500	Yes	Polyclonal, Red (594)
Alexa Fluor 594 Donkey Anti Rabbit IgG	Thermo Fisher Scientific	A21207	Donkey	1:500		Red (594)