ATLAS ANTIBODIES

Tissue Expression Profiling using Triple A Polyclonals

Highly Characterized Antibodies - in many Prestigous Publications

Each Triple A Polyclonal is analyzed in 48 normal human tissues (Figure 1) as well as in the 20 most common cancers using immunohistochemistry (IHC) and all expression profiles are conveniently searchable online on the Human Protein Atlas (HPA) portal (proteinatlas.org). Each year protein expression and localization data of approximately 2,000 new proteins are added to the portal. In April 2013, Triple A Polyclonals have been used to analyze protein expression of more than 13,000 human genes, corresponding to 65% of the proteome. By the end of 2015, a first draft of the localization of the full human proteome of 20,000 protein coding genes will be available. In addition to IHC, all antibodies have been tested for performance in Immunofluorescence (IF) and Western Blot (WB) applications. In total, more than 700 IHC, as well as IF and WB images per antibody, are presented on the portal.

As shown by numerous references, Triple A Polyclonals are used for exploring the whole human body (Figure 2).

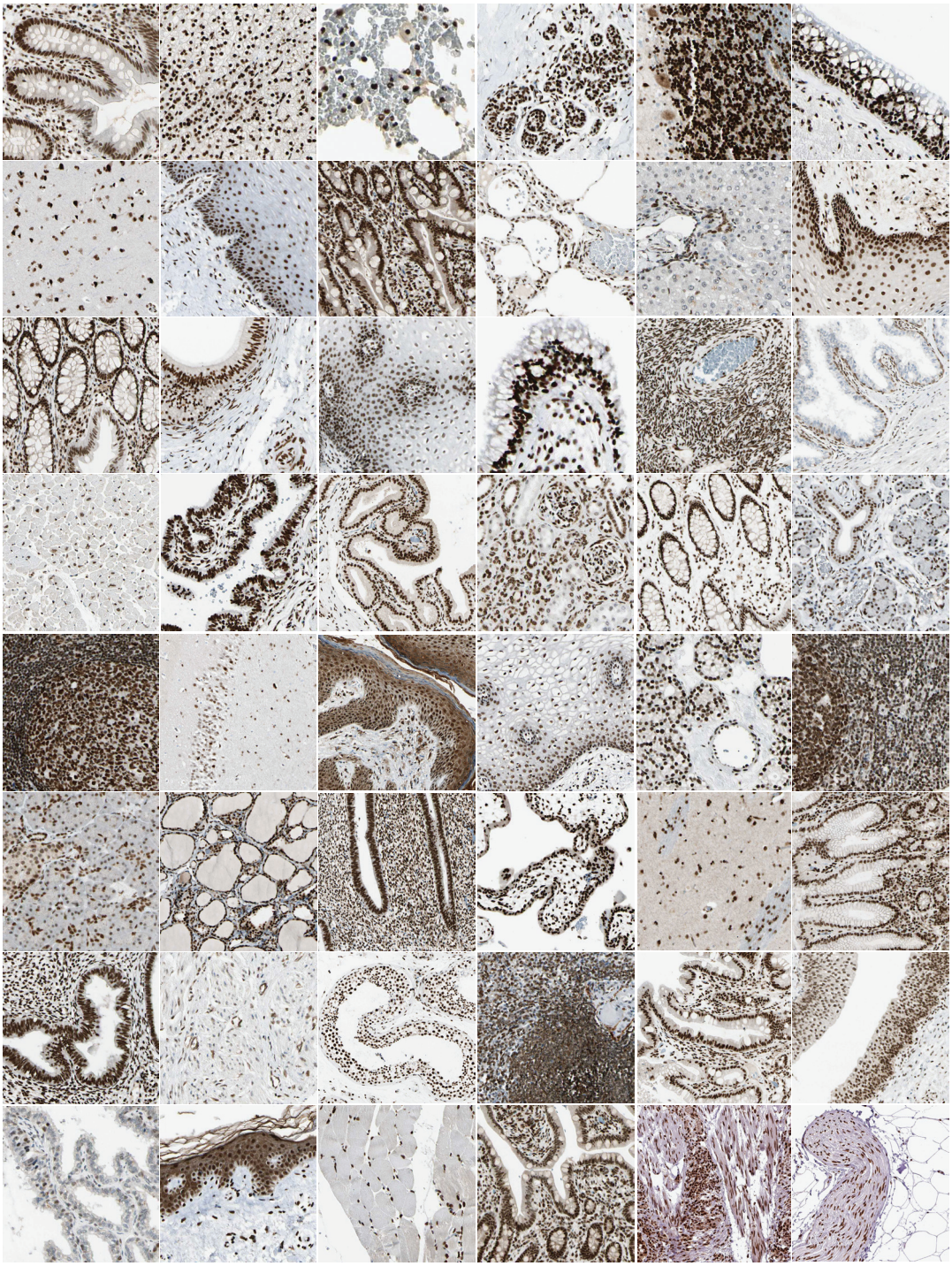
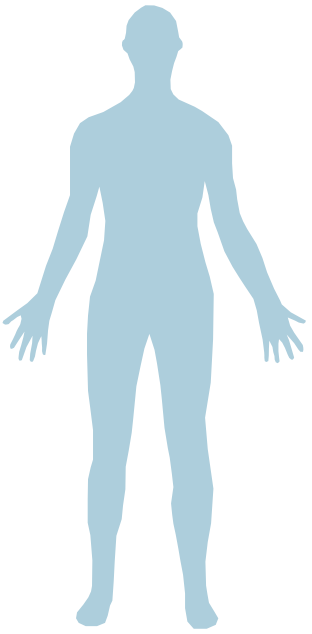


Figure 1.
IHC staining of sections from 48 different normal human tissues shows strong nuclear positivity using Anti-FUS antibody (HPA008784). The normal tissue sections shown are (from upper left, row-wise): appendix, adrenal gland, bone marrow, breast, cerebellum, bronchus, cerebral cortex, cervix, duodenum, lung, liver, oral mucosa, colon, epididymis, esophagus, nasopharynx, ovary, prostate, heart muscle, fallopian tube, gall bladder, kidney, rectum, salivary gland, lymph node, hippocampus, vulva/anal skin, vagina, parathyroid gland, tonsil, pancreas, thyroid gland, uterus (pre-menopause), placenta, lateral ventricle wall, stomach (lower), uterus (post-menopause), smooth muscle, testis, spleen, stomach (upper), urinary bladder, seminal vesicle, skin, skeletal muscle, small intestine and soft tissue (1 and 2).



ATLAS ANTIBODIES

Selected References

CNS (Anti-DIAPH2, HPA005647):
Shinohara R *et al.* A role for mDia, a Rho-regulated actin nucleator, in tangential migration of interneuron precursors.
Nature Neuroscience 2012 Jan 15;15(3):373-80.

CNS (Anti-ATRX, HPA001906; Anti-DAXX, HPA008736):
Schwartzentruber J *et al.* Driver mutations in histone H3.3 and chromatin remodelling genes in paediatric glioblastoma.
Nature 2012 Jan 29;482(7384):226-31.

CNS (Anti-SERAC1, HPA025716):
Wortmann SB *et al* Mutations in the phospholipid remodeling gene SERAC1 impair mitochondrial function and intracellular cholesterol trafficking and cause dystonia and deafness.
Nature Genetics 2012 Jun 10;44(7):797-802.

CNS (Anti-CDKL5, HPA002847):
Ricciardi S *et al.* CDKL5 ensures excitatory synapse stability by reinforcing NGL-1-PSD95 interaction in the postsynaptic compartment and is impaired in patient iPSC-derived neurons.
Nature Cell Biology 2012 Sep;14(9):911-23.

Striatum (Anti-FOXP2, HPA000382):
Enard W *et al.* A humanized version of Foxp2 affects cortico-basal ganglia circuits in mice.
Cell 2009 May 29;137(5):961-71.

Lung (Anti-DICER1, HPA000694):
Hill DA *et al.* DICER1 mutations in familial pleuropulmonary blastoma.
Science 2009 Aug 21;325(5943):965.

Lung (Anti-NPC2, HPA000835):
Taguchi A *et al.* Lung cancer signatures in plasma based on proteome profiling of mouse tumor models.
Cancer Cell 2011 Sep 13;20(3):289-99.

Breast (Anti-PSPH, HPA020376; Anti-PHGDH, HPA021241):
Possemato R *et al.* Functional genomics reveal that the serine synthesis pathway is essential in breast cancer.
Nature 2011 Aug 18;476(7360):346-50.

Stomach (Anti-ARID1A, HPA005456):
Wang K *et al.* Exome sequencing identifies frequent mutation of ARID1A in molecular subtypes of gastric cancer.
Nat Genetics 2011 Oct 30;43(12):1219-23.

Pancreas (Anti-ATRX, HPA001906; Anti-DAXX, HPA008736):
Heaphy CM *et al.* Altered telomeres in tumors with ATRX and DAXX mutations.
Science 2011 Jul 22;333(6041):425.

Kidney (Anti-PLA2R1, HPA012657):
Debiec H *et al.* PLA2R autoantibodies and PLA2R glomerular deposits in membranous nephropathy.
N Engl J Med 2011 Feb 17;364(7):689-90.

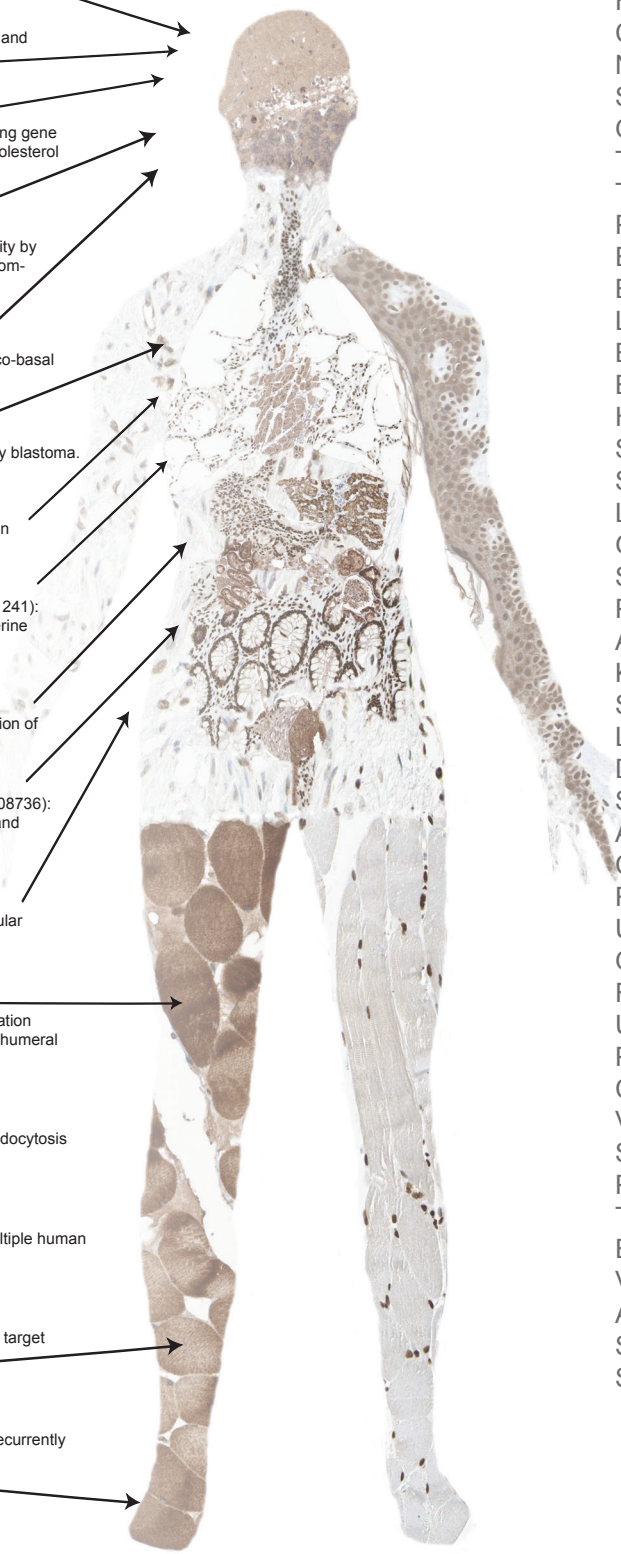
Skeletal muscle (Anti-SMCHD1, HPA039441):
Lemmers RJ *et al* Digenic inheritance of an SMCHD1 mutation and an FSHD-permissive D4Z4 allele causes facioscapulohumeral muscular dystrophy type 2.
Nature Genetics 2012 Dec;44(12):1370-4.

Angiogenesis (Anti-EFNB2, HPA008999):
Nakayama M *et al.* Spatial regulation of VEGF receptor endocytosis in angiogenesis.
Nature Cell Biology 2013 Mar;15(3):249-60.

Cancer (Anti-FAT1, HPA023882):
Morris LG *et al.* Recurrent somatic mutation of FAT1 in multiple human cancers leads to aberrant Wnt activation.
Nature Genetics 2013 Mar;45(3):253-61.

Blood (Anti-BRD4, HPA015055):
Zuber J *et al.* RNAi screen identifies Brd4 as a therapeutic target in acute myeloid leukaemia.
Nature 2011 Aug 3;478(7370):524-8.

Skin (Anti-SETDB1, HPA018142):
Ceol CJ *et al.* The histone methyltransferase SETDB1 is recurrently amplified in melanoma and accelerates its onset.
Nature 2011 Mar 24;471(7339):513-7.



Normal Tissues on HPA

Lateral ventricle wall
Cerebral cortex
Hippocampus
Cerebellum
Nasopharynx
Salivary gland
Oral mucusa
Tonsil
Thyroid gland
Parathyroid gland
Esophagus
Bronchus
Lung
Bone marrow
Breast
Heart muscle
Skeletal muscle
Smooth muscle
Liver
Gall bladder
Spleen
Pancreas
Adrenal gland
Kidney
Stomach
Lymph node
Duodenum
Small intestine
Appendix
Colon
Rectum
Urinary bladder
Ovary
Fallopian tube
Uterus
Placenta
Cervix
Vagina
Seminal vesicle
Prostate
Testis
Epididymis
Vulva
Anal skin
Skin
Soft tissues

Figure 2.
All Triple A Polyclonals are extensively characterized on the Human Protein Atlas in 48 normal human tissues listed to the right. Listed to the left are some selected articles, where Triple A Polyclonals have been used, recently published in high impact journals. References for a specific antibody are listed on each product data sheet on Atlas Antibodies web page (atlasantibodies.com).

Atlas Antibodies AB
Voltavägen 13A SE-168 69
Bromma, Sweden

Phone +46(0)8 54 59 58 50
Fax +46(0)8 54 59 58 51
contact@atlasantibodies.com
atlasantibodies.com

IBAN SE91 6000 0000 0004 6991 6761
Swift code HANDSESS
Reg. no 556682-8082
VAT ID no. SE55668208201

Bankgiro 5469-1092
Registered Office Stockholm. Sweden
Innehar F-skattsede