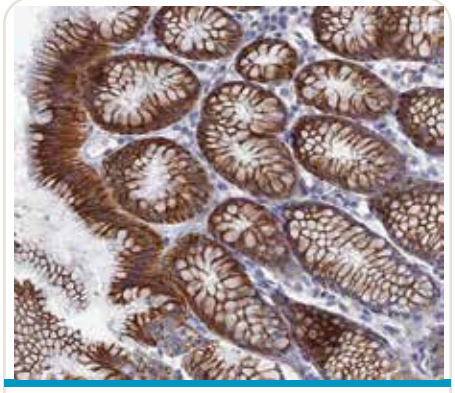
Antibody Validation

ATLAS ANTIBODIES

APPLICATION-SPECIFIC VALIDATION

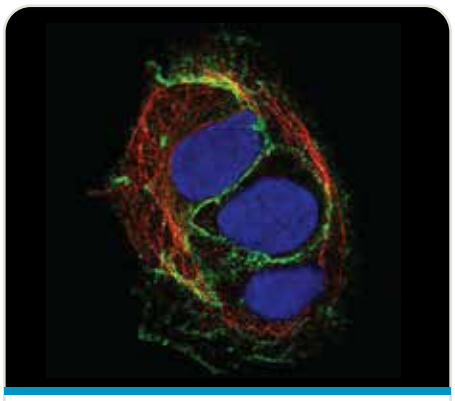
Validation you can verify, for the application you actually need. Four applications. One open scientific record.



17,000+

IHC

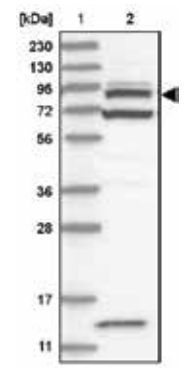
44 normal tissues ·
20 common cancers



11,000+

ICC-IF

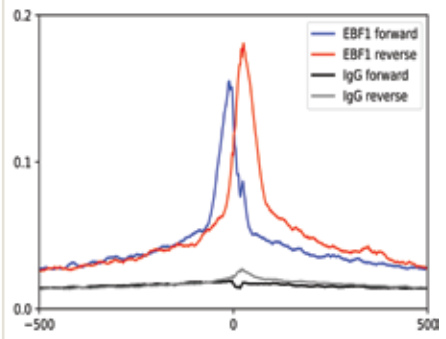
Confocal imaging ·
49 subcellular structures



9,000+

Western blot

Cell lines, tissues and knockdown controls



750+

ChIP-Exo-Seq

Benchmarked at Cornell Uni. (Pugh lab)

Fewer failed experiments, Less wasted sample.

Every Atlas Antibodies product is validated using methods developed within the Human Protein Atlas, where an antibody counts as validated only when it performs in a complex biological sample.

An antibody that works in one application may not work in another, so we test each antibody for the application it is sold for. We only list an application when the antibody meets our validation criteria.

Enhanced validation: confirming specificity

Beyond standard validation, we confirm specificity using *enhanced validation methods* by testing targets against the five pillars established by the International Working Group for Antibody Validation (IWGAV) ensuring the signal reflects genuine biology, not an off-target artifact.

Why it matters: A crisp band or distinct stain confirms reactivity, but it doesn't prove specificity. Enhanced validation goes beyond standard QC.

ENHANCED VALIDATION AT A GLANCE

Antibody specificity is further confirmed using complementary enhanced validation approaches.

Method	IHC	ICC-IF	WB	ChIP-Exo-Seq
Orthogonal ► antibody-free proof. Signal matches RNA-seq	✓	–	✓	–
Genetic (KO/KD) ► absolute specificity siRNA knockdown drops the signal	–	✓	✓	–
Independent antibody ► cross-confirmation Two antibodies, same pattern	✓	✓	✓	–
Recombinant expression ► target capture proof. Tagged or over-expressed target	–	✓	✓	–
Independent benchmark ► external lab. Functional assay	–	–	–	✓

20 YEARS

2006-2026 Born from the Human Protein Atlas,
Atlas Antibodies celebrates two decades mapping the human proteome.

atlasantibodies.com
Open data · *proteinatlas.org*

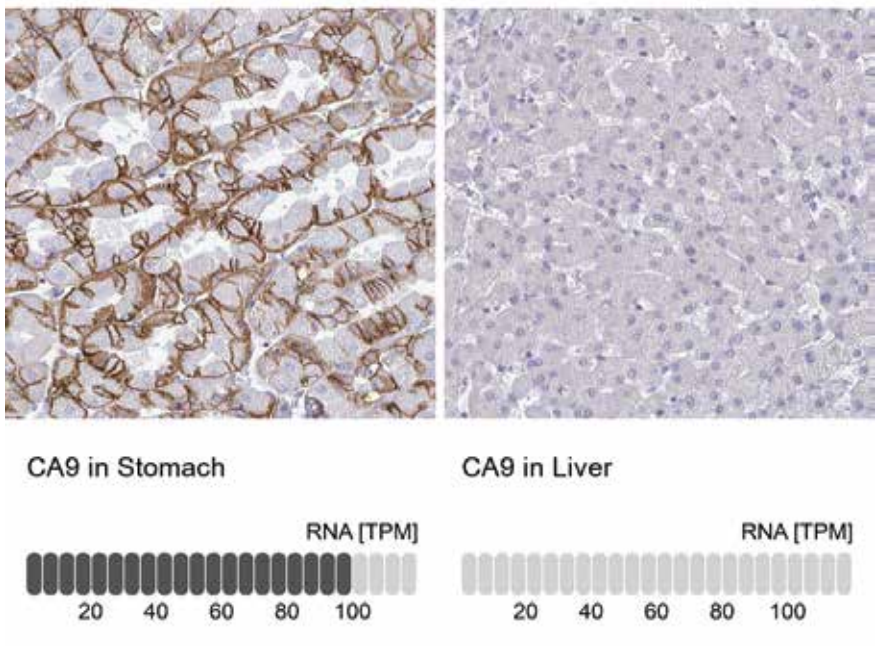
Tissue and Cell Validation



IHC · 17,000+ ANTIBODIES | FFPE-TMAs | 44 normal tissues | 20 common cancers

Antibody specificity is further confirmed using two complementary enhanced validation methods.

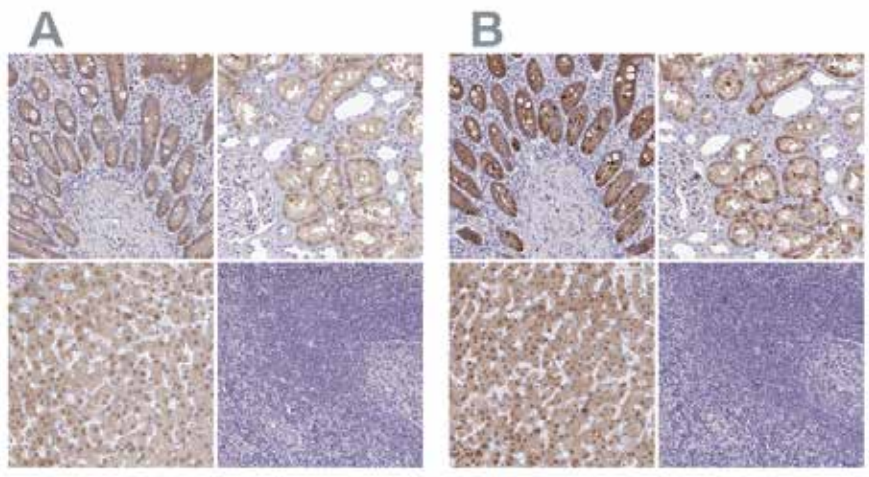
1 · ORTHOGONAL



Protein matches RNA

Anti-CA9 (HPA055207). Strong staining in stomach, no staining in liver, in line with RNA levels in both tissues.

2 · INDEPENDENT ANTIBODY



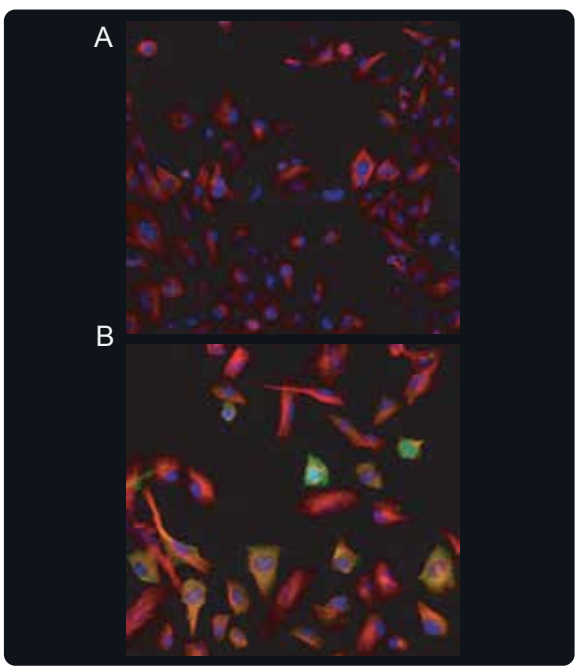
Two antibodies. Same target. One pattern.

Anti-A1CF HPA037779 (A) and HPA044079 (B) bind different regions of the protein and show the same staining in four tissues.

ICC-IF · 11,000+ ANTIBODIES | up to 3 cell lines | reference markers | 49 subcellular structures

Antibody specificity is further confirmed using three complementary enhanced validation methods.

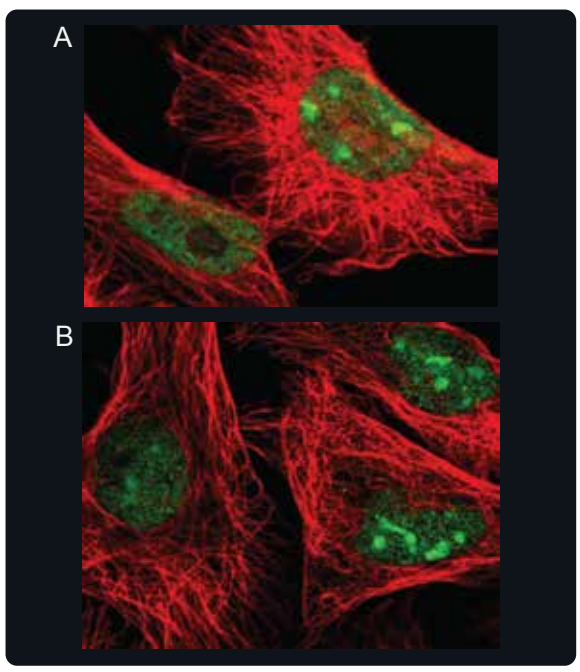
1 · GENETIC



Knockdown drops signal

Anti-CCNB1 (HPA030741) in U-2 OS cells. Staining decreases after siRNA knockdown of the target gene (A), compared with a scrambled siRNA control (B).

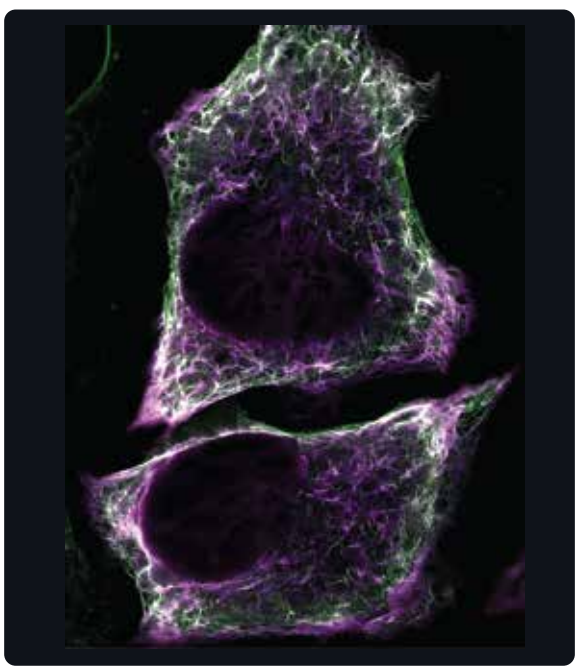
2 · INDEPENDENT ANTIBODY



Two antibodies. Same location.

Anti-ADAR HPA003890 (A) and HPA051519 (B) bind different regions of the protein and stain the same subcellular structure (green). Human cell line U-251MG

3 · RECOMBINANT (GFP tag)



Antibody and GFP tag overlaps

Anti-NES (HPA006286) in HeLa cells expressing GFP-tagged nestin. Antibody staining of intermediate filaments overlaps the GFP signal.

Questions about validation data?
We'll show you.

atlasantibodies.com
Open data · *proteinatlas.org*

WB and ChIP Validation

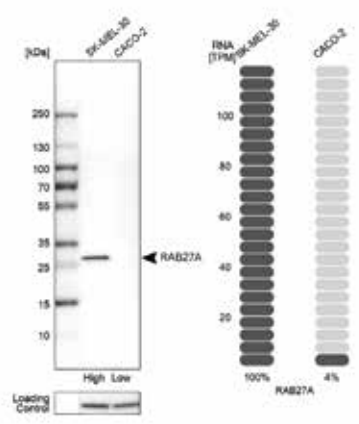


WESTERN BLOT · 9,000+ ANTIBODIES

cross-species | tissues & cell lines | endogenous lysates

Antibody specificity in WB is confirmed using four complementary **enhanced validation** approaches.

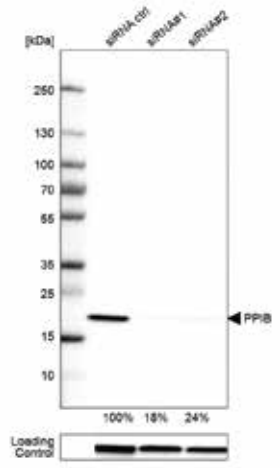
1 · ORTHOGONAL - RNA



Band follows RNA

Anti-RAB27A (HPA001333) Strong band in SK-MEL-30, weak in CACO-2, in line with RNA levels.

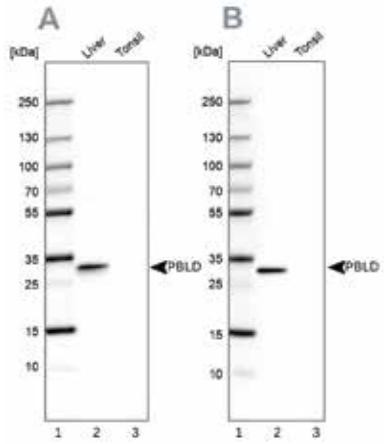
2 · GENETIC siRNA



Knockdown drops signal

Anti-PPIB (HPA012720) in U-251 cells. siRNA-mediated gene knockdown (lanes 2,3) reduces the signal accordingly.

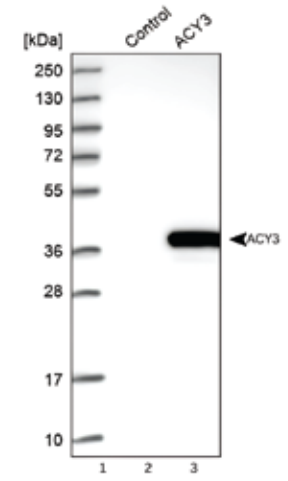
3 · INDEPENDENT ANTIBODY



Same band, two antibodies

Anti-PBLD HPA038036 (A) and HPA038035 (B) show the same band in liver (lane 2) and no signal in tonsil (lane 3).

4 · RECOMBINANT



Band only with target

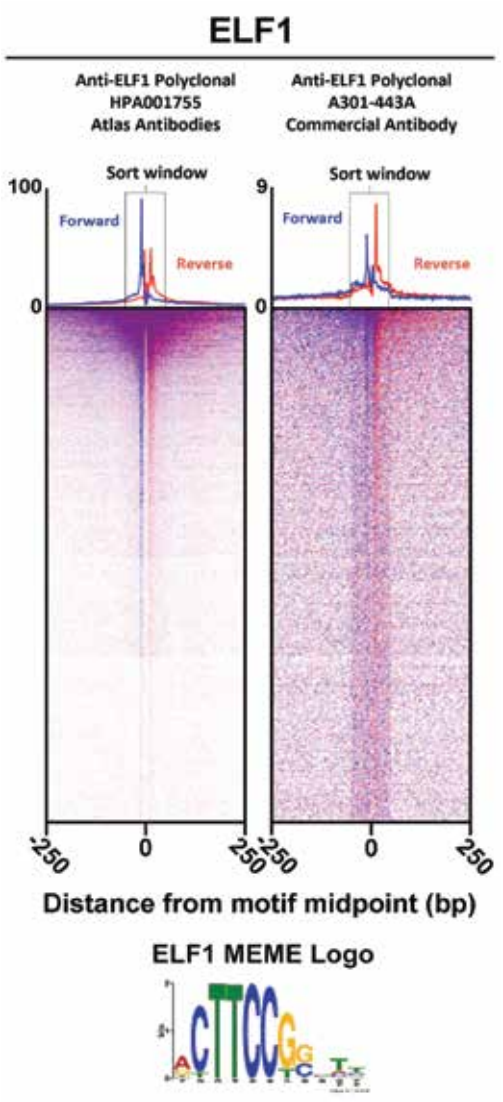
Anti-ACY3 (HPA039219). Band in ACY3 over-expressing HEK293T cells (lane 3), none in vector control (lane 2).

CHIP-EXO-SEQ · 750+ ANTIBODIES

1bp resolution | IgG controls | independent benchmark

Tested independently in the lab of Prof. B. F. Pugh, Cornell University, pioneer of the ChIP-Exo-Seq method.

1 · BENCHMARKED HEAD-TO-HEAD

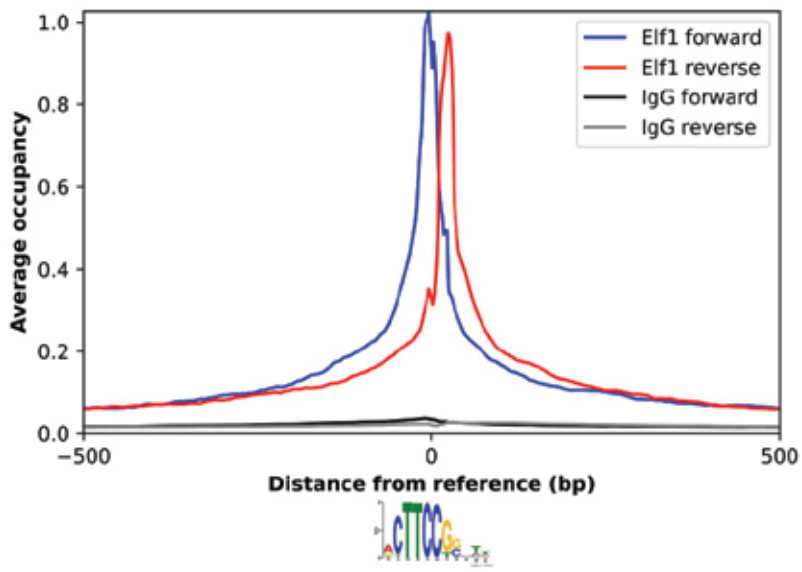


Cleaner enrichment

Anti-ELF1 (HPA001755) (left) vs a commercial anti-ELF1 antibody (right), both in K562 cells.

The Atlas Antibodies antibody shows stronger, sharper enrichment at the ELF1 binding motif.

2 · SIGNAL VS. IgG

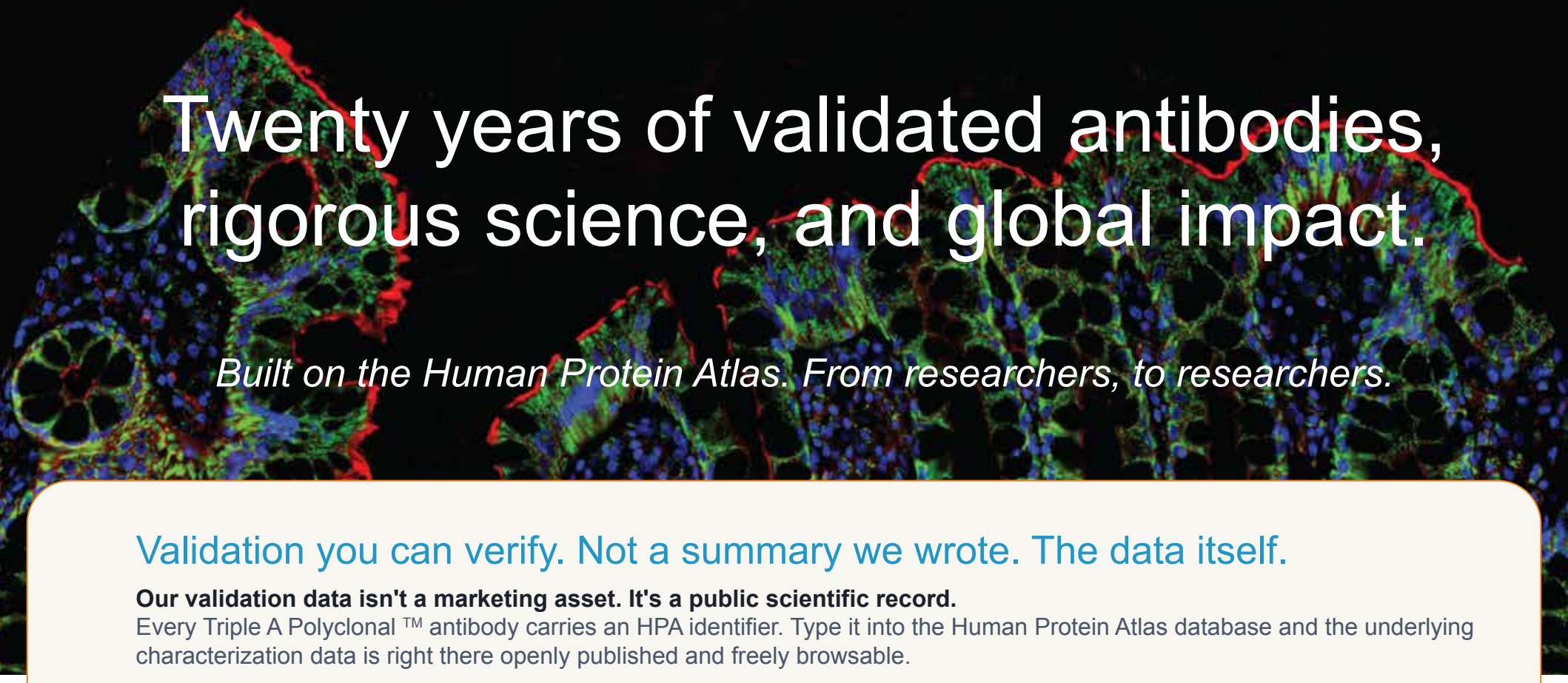


Clear peak, flat control

ChIP-Exo-Seq composite profile of Anti-ELF1 (HPA001755) in K562 cells, showing strand-specific reads and IgG controls. Plots are smoothed by a 21 bp moving average across 460 sites. A strong peak is observed at the binding site, while the IgG control remains flat, indicating robust and precise target enrichment. Data from Prof. B. F. Pugh's Lab, Cornell University.

Questions about validation data?
We'll show you.

atlasantibodies.com
Open data · *proteinatlas.org*



Twenty years of validated antibodies, rigorous science, and global impact.

Built on the Human Protein Atlas. From researchers, to researchers.

Validation you can verify. Not a summary we wrote. The data itself.

Our validation data isn't a marketing asset. It's a public scientific record.
Every Triple A Polyclonal ™ antibody carries an HPA identifier. Type it into the Human Protein Atlas database and the underlying characterization data is right there openly published and freely browsable.

1. **Find the HPA ID**
   On every product page
   HPA012720
2. **Enter it at:**
   proteinatlas.org
3. **See the data**
   Images, scores, RNA data

Documented since 2006. Open, public, and permanent.

We stand behind our validation data published in the open on the Human Protein Atlas database.

PROOF POINTS

01 Designed for specificity
Every antigen selected in silico for uniqueness within the human proteome.

02 Made in-house
Antigen production and quality control under one roof in Sweden.

03 Antigen-specific affinity purification
Every antibody captured on its own antigen-specific affinity column.

04 Benchmarked, not assumed
Selectivity tested against hundreds of proteins on arrays and in complex lysates and tissues.

05 Published, not just catalogued
Born in the Human Protein Atlas, documented in the open via the HPA identifier on *proteinatlas.org*;

06 Failures are not for sale
Antibodies that fail specificity benchmarking are removed. It's part of the workflow, not the fine print.

07 20 years, 1 philosophy
Our antibodies were created to answer scientific questions first and became products afterward (2006–2026)







076-Antibody Validation-Oct 2026

20 YEARS

2006-2026 Born from the Human Protein Atlas,
Atlas Antibodies celebrates two decades mapping the human proteome.

ATLAS ANTIBODIES