

## Anti-LIF Antibody Picoband™

Catalog Number: PB9036

### About LIF

LIF is a pleiotropic cytokine produced at the maternal-fetal interface which has been shown to play an essential role in implantation in mice. This gene is mapped to 22q11-q12.2, between the Philadelphia translocation BCR gene and the breakpoint of the translocation in cell line GM2324 at 22q12.2. LIF is produced in high amounts by the human endometrium and the trophoblast itself, and LIF receptors are present on cytotrophoblast cells. LIF could, thus, play a role in modulating HLA-G production and immune tolerance at the maternal-fetal interface.

### Overview

|                      |                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-LIF Antibody Picoband™                                                                                                                                                                           |
| Reactive Species     | Human                                                                                                                                                                                                 |
| Description          | Boster Bio Anti-LIF Antibody Picoband™ catalog # PB9036. Tested in IHC, WB applications. This antibody reacts with Human.                                                                             |
| Application          | IHC, WB                                                                                                                                                                                               |
| Clonality            | Polyclonal                                                                                                                                                                                            |
| Formulation          | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                                   |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |
| Host                 | Rabbit                                                                                                                                                                                                |
| Uniprot ID           | P15018                                                                                                                                                                                                |

### Technical Details

|                               |                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | E.coli-derived human LIF recombinant protein (Position: S23-F202). Human LIF shares 78% and 82% amino acid (aa) sequences identity with mouse and rat LIF, respectively.         |
| Predicted Reactive Species    | Bovine, Horse, Monkey                                                                                                                                                            |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| Cross Reactivity              | No cross-reactivity with other proteins                                                                                                                                          |
| Isotype                       | Rabbit IgG                                                                                                                                                                       |
| Form                          | Lyophilized                                                                                                                                                                      |
| Concentration                 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                        |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purification        | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> |

## Anti-LIF Antibody Picoband™ (PB9036) Images

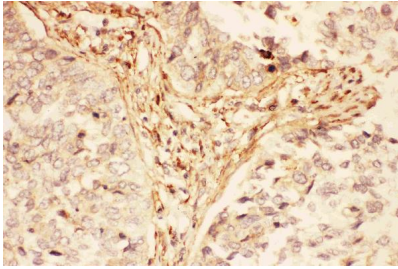


Figure 1. IHC analysis of LIF using anti-LIF antibody (PB9036).

LIF was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LIF Antibody (PB9036) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

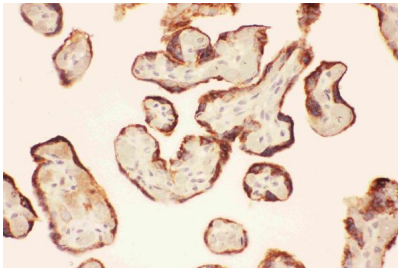


Figure 2. IHC analysis of LIF using anti-LIF antibody (PB9036).

LIF was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-LIF Antibody (PB9036) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

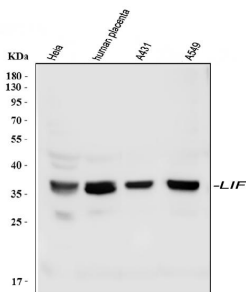


Figure 3. Western blot analysis of LIF using anti-LIF antibody (PB9036).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,  
Lane 2: human placenta tissue lysates,  
Lane 3: human A431 whole cell lysates,  
Lane 4: human A549 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LIF antigen affinity purified polyclonal antibody (Catalog # PB9036) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for LIF at approximately 36 kDa. The expected band size for LIF is at 22 kDa.

1. PubMed ID: 10.1155/MI/2006/84829, LIF Upregulates Expression of NK-1R in NHBE Cells
2. PubMed ID: 33536035, Zhou L, Li C, Liu X, Zhang T. Effect of Irisin on LIF and integrin  $\alpha v \beta 3$  in rats of implantation failure. Reprod Biol Endocrinol. 2021 Feb 3;19(1):18. doi:10.1186/s12958-021-00700-9. PMID:33536035; PMCID:PMC7856750.
3. PubMed ID: 17392578, Hu Cp, Feng Jt, Tang Yl, Zhu Jq, Lin Mj, Yu Me. Mediators Inflamm. 2006;2006(5):84829. LIF Upregulates Expression Of NK-1R In Nhbe Cells.

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