

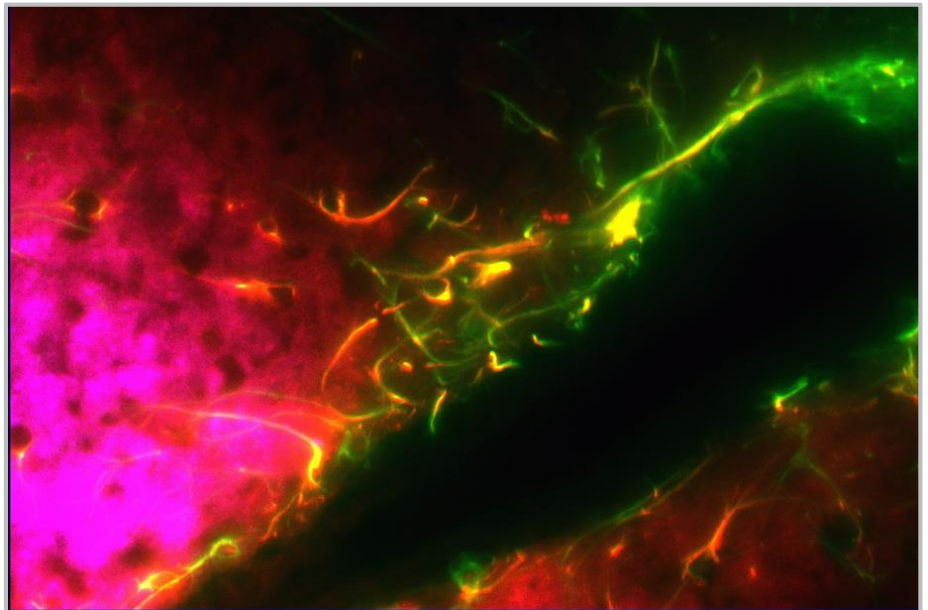
TECHNOLOGY OFFERS

Monoclonal Antibody Against SUMO1 (P-1193)

An antibody which targets SUMO1 proteins of a wide variety of different species.

EXECUTIVE SUMMARY

The antibody of this invention is a mouse monoclonal antibody directed against SUMO176-86 recognizing SUMO1 of human, mouse, chicken and *X. laevis*. It is suitable for western blot and immune precipitation as well as for large-scale enrichment of SUMOylated species by IP / peptide elution.



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Category

Therapeutics,
Research Tools

Indication

Various

Development stage

Prototype

Seeking

Licensing

BENEFITS

- Monoclonal mouse antibody directed against SUMO176-86
- Antibody recognizes SUMO1 of human, mouse, chicken and *X. laevis*
- Suitable for western blot and immune precipitation
- Suitable for large-scale enrichment of SUMOylated species by IP / peptide elution

TECHNOLOGY BACKGROUND

SUMOylation is an essential modification that regulates hundreds of proteins in eukaryotic cells. The current invention provides an antibody which targets SUMO1 protein of a wide variety of different species.

DEVELOPMENT STAGE

Hybridoma cell line producing monoclonal mouse antibody (IgG1, kappa light chain). No other public information is currently available, but further information (speaking with the inventor) is available under a signed Confidential Disclosure Agreement (CDA).

APPLICATIONS

The antibody recognizes an epitope that is shared in SUMO1 proteins of human, mouse, chicken and *X. laevis*. The antibody is especially useful for the enrichment of sumoylated species from cells and tissues, as it immunoprecipitates efficiently upon denaturing lysis. Bound proteins can be efficiently removed from solid phase bound antibodies by elution with epitope spanning peptides (see Becker et. al 2013).

INTELLECTUAL PROPERTY

Know-how

No patent filed.

PUBLICATIONS & REFERENCES

- “Detecting endogenous SUMO targets in mammalian cells and tissues” by Becker J, Barysch SV, Karaca S, Dittner C, Hsiao HH, Diaz MB, Herzig S, Urlaub H, Melchior F. Nat Struct Mol Biol. 2013 pr;20(4):525-31.
- “Identification and analysis of endogenous SUMO1 and SUMO2/3 targets in mammalian cells and tissues using monoclonal antibodies.” by Barysch, S.V., Dittner, C., Flotho, A., Becker, J., Melchior, F. (2014). in Nat. Protoc. 9(4):896-909..

DKFZ Contact:

Lana Semykina
Deutsches Krebsforschungszentrum
Innovation Management T010
Email: s.semykina@dkfz.de
Tel.: +49-(0)6221-42-2953
Fax: +49-(0)6221-42-2956

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Working at the interface of research and industry, the Innovation Management of the German Cancer Research Center (DKFZ) helps to get new cancer medications, diagnostic tests, and research instruments onto the market as quickly as possible.

The DKFZ with its more than 3,000 employees is the largest biomedical research institution in Germany. At the Center more than 1,300 scientists investigate how cancer develops, identify cancer risk factors and endeavor to find new strategies to prevent people from getting cancer. They develop novel approaches to make tumor diagnosis more precise and treatment of cancer patients more successful. DKFZ is a member of the Helmholtz Association of National Research Centers, with ninety percent of its funding coming from the German Federal Ministry of Education and Research and the remaining ten percent from the State of Baden-Württemberg