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# Western Blot

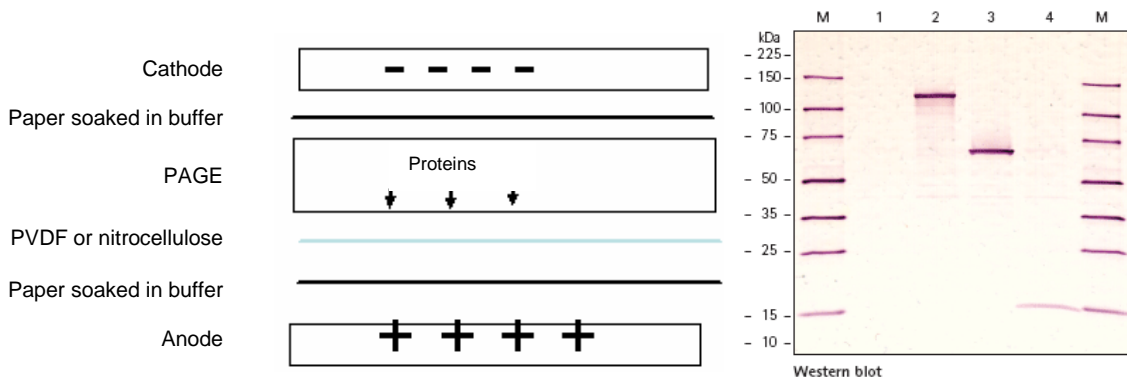
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Western blot is a technique for detecting and identifying specific proteins in a biological sample or antibodies directed against these proteins. In our case, the Western blot technique is used to control the antibody reactivity towards specific proteins.

## Principle of the method:

Western Blot is a transfer technique on nitrocellulose of proteins separated by electrophoresis, to test the antibodies reactivity towards proteins.

1 <sup>st</sup> step:	<b>Sample preparation</b> (denaturation and reduction of proteins)
2 <sup>nd</sup> step:	<b>Proteins separation</b> according to their size by <b>SDS PAGE</b> (See NT025 EN)
3 <sup>rd</sup> step:	<b>Protein transfer onto a membrane</b> (nitrocellulose). So that proteins can be accessible and detected by antibodies, they are transferred from the electrophoresis gel to the membrane through an electrical current. Charged proteins will migrate from the gel to the membrane by keeping the relative organization they had in the gel. As a result proteins are exposed on a thin surface, which will facilitate the detection steps thereafter.
4 <sup>th</sup> step:	<b>Saturation of the membrane</b> This step allows to avoid no specific binding of antibodies on the membrane.
5 <sup>th</sup> step:	<b>Detection:</b> A solution of primary antibody is incubated with the membrane.
6 <sup>th</sup> step:	<b>Addition of the antibody detection:</b> After incubating the primary antibody with the membrane and washes, a biotin or enzyme (eg peroxidase) labeled secondary antibody is added and incubated with the membrane.
7 <sup>th</sup> step:	<b>Revelation:</b> After several washings, the membrane is incubated with a detection solution. This solution contains a substrate that reacts to the present release mechanism on the detection antibody. The soluble dye will then be converted into a form insoluble and will precipitate next to the enzyme, and dye the nitrocellulose membrane and thus identifying the reactivity of primary antibodies.



**If you wish more information about Western Blot, do not hesitate to contact our Sales representatives.**

Within two weeks of submitting your order you will receive a timetable for the realization of your service. The results of this service are summarized in a certificate of analysis specifying the steps of development and the results obtained.

Not included in our service:

- Postal charges for shipping of material remainder if need.

*Cf. General terms of sale*