Horseradish Peroxidase (HRP)

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview	
Product Name	Horseradish Peroxidase (HRP)
Size	To be used in conjunction with 100 or 200 µg Antibodies
Molecular Weight	44kDa
Applications*	WB | IHC | ELISA

Properties

- Enzymatic activity is used to amplify weak signals and increase visibility of a target
- Readily combines with hydrogen peroxide (H_2O_2) to form HRP-H_2O_2 complex which can oxidize various hydrogen donors
- Catalyzes the conversion of:
  - Chromogenic substrates (e.g. TMB, DAB, ABTS) into coloured products
  - Chemiluminescent substrates (e.g. luminol and isoluminol) into light emitting products via enhanced chemiluminescence (ECL)
  - Fluorogenic substrates (e.g. tyramine, homovanillic acid, and 4-hydroxyphenyl acetic acid) into fluorescent products
- High turnover rate enables rapid generation of a strong signal
- 44 kDa glycoprotein
- Extinction coefficient: 100 (403 nm)

Alkaline Phosphatase, Biotin, Streptavidin and the following fluorescent conjugates are available with almost all StressMarq Primary Antibodies:

Label	Excitation Max	Emission Max	Extinction Coefficient	Emission	Substitute for:
ATTO 390	390	479	24000		-
FITC	494	520	73000		Alexa Fluor® 488
ATTO 488	501	523	90000		Alexa Fluor® 488 FITC
R-PE	535	575	2000000		TRITC
ATTO 565	563	592	120000		Cy®3.5 ROXTM Alexa Fluor® 546 Alexa Fluor® 555 Alexa Fluor® 568
PE/ATTO 594	535	627	-		-
ATTO 594	601	627	80000		Alexa Fluor® 594 Texas Red®
ATTO 633	629	657	130000		Alexa Fluor® 633
APC	650	670	700000		Cy®5 Alexa Fluor® 647 Alexa Fluor® 660
PerCP	482	677	380000		-
ATTO 655	663	684	125000		Cy®5 Alexa Fluor® 647 Alexa Fluor® 660
ATTO 680	682	715	140000		Cy®5.5 Alexa Fluor® 680
ATTO 700	700	725	120000		Cy®5.5 Alexa Fluor® 700

Please Note: *All products are for in vitro research use only and are not intended for use in humans or animals.*

It is possible that the conjugate tag may bind in the paratope of the antibody, thereby limiting binding of the antibody to the antigen. Although this is unlikely, it could affect the ability of the antibody to bind to the antigen in various species and applications. As we cannot control the binding of the conjugate to the antibody, there is no way to confirm or guarantee the location of the antibody tag.

** The applications listed are general applications for the conjugate label alone. It does not guarantee that antibody-conjugate combinations have been tested for use in the listed applications.*

StressMarq Biosciences Inc. | PO Box 55036 Cadboro Bay | Victoria BC V8N 4G0 | Canada
www.stressmarq.com | Phone: +1 250 294 9065 | Fax: +1 250 294 9025 | E-mail: sales@stressmarq.com

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Material Safety Data Sheet
Horseradish Peroxidase (HRP)

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

Physical Data

This product consists of freeze-dried solid.
The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

This product is not flammable. There are no anticipated hazardous decomposition products associated with this material. No specific firefighting procedure given.
Carcinogeneic, mutagenic and teratogenic effects: Not Available.

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

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