Data Sheet (Cat.No.TMPH-03143)

TargetMol

PFD0110w Protein, Plasmodium falciparum, Recombinant

General Information

Synonyms:	Normocyte-binding protein 1 (PfNBP1);NBP1;RH1;PfRH1;Reticulocyte-binding protein homolog 1
Protein Construction:	24-269 aa
Species:	Plasmodium falciparum
Expression Host:	E. coli
Accession:	P86148
Molecular Weight:	30.1 kDa (predicted)
AA Sequence:	QESYSSNEKIRKDYSDDNNYEPTPSYEKRKKEYGKDESYIKNYRGNNFSYDLSKNSSIFLHMGNGSNSKTLKR CNKKKNIKTNFLRPIEEEKTVLNNYVYKGVNFLDTIKRNDSSYKFDVYKDTSFLKNREYKELITMQYDYAYLEAT KEVLYLIPKDKDYHKFYKNELEKILFNLKDSLKLLREGYIQSKLEMIRIHSDIDILNEFHQGNIINDNYFNNEIKKK KEDMEKYIREYNLYIYKYENQ

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

During the asexual blood stage, binds to a sialic acid containing receptor on the surface of the host erythrocyte and thus is involved in merozoite invasion. Binds erythrocytes via a neuraminidase sensitive and trypsin-, chymotrypsin-resistant receptor. After merozoite attachment and reorientation, RH1 binding to its erythrocyte receptor triggers an increase in intracellular Ca(2+) within the parasite resulting in the release of microneme proteins such as EBA175 which in turn leads to the formation of the tight junction between parasite and host cell.

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