

Caution: For Laboratory Use. A research chemical for research purposes only

## Glutathione Acceptor Beads

**Product No.:** AL109C (250 µg)  
AL109M (5 mg)  
AL109R (25 mg)

**Lot No.:** 673-401-A

### Material Provided

#### Formats:

Catalog number	Size	Volume	Assay points
AL109C	250 µg	50 µL	500
AL109M	5 mg	1 mL	10 000
AL109R	25 mg	5 mL	50 000

The number of assay points is based on an assay volume of 25 µL in 384-well assay plates using a final bead concentration of 20 µg/mL.

#### Manufacturing Date:

July 13, 2011

#### Description:

AlphaLISA Glutathione Acceptor Beads at 5 mg/mL in 50 mM Tris pH 8.0, 150 mM NaCl, 0.1% Tween-20 supplemented with 0.05% Proclin-300 as a preservative.

#### Storage:

Store in the dark at 4°C.

#### Stability:

This product is stable for at least 12 months from the manufacturing date when stored in its original packaging under recommended storage conditions.

### Product Information

#### Intended use:

This product is intended for use in homogeneous AlphaLISA assays for the capture of GST-tagged targets.

**FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.**

### Quality Control

Lot-to-lot consistency is confirmed by a Quality Control AlphaScreen<sup>®</sup> titration assay read on an EnVision<sup>®</sup> HTS Alpha instrument (see protocol below). We certify that the results meet our quality release criteria. *Note: maximum counts will vary depending on assay conditions as well as between lots. This variation has no impact on assay quality.*

Maximum signal                    478 619 counts  
Minimum signal:                    686 counts  
EC<sub>50</sub>:                                    65.36 nM

## Titration Assay (Quality Control Protocol)

This protocol provides a means to verify product performance.

The following reagents and materials are recommended.

Item	Suggested Source	Catalog #
AlphaScreen® Nickel chelate Donor beads	PerkinElmer LAS, Inc.	AS101D (1 mg) AS101M (5 mg) AS101R (25 mg)
GST, 6 His-tagged protein	Millipore Corp.	12-523
AlphaLISA Universal Assay Buffer, 5X	PerkinElmer LAS, Inc.	AL001C (10 mL) AL001F (100 mL)
White OptiPlate™-384	PerkinElmer LAS, Inc.	6007290
TopSeal™-A Adhesive Sealing Film	PerkinElmer LAS, Inc.	6005185
EnVision® Multilabel Reader with the Alpha Option	PerkinElmer LAS, Inc.	-

### Recommendations:

- AlphaScreen® Donor beads are light-sensitive. All AlphaLISA assays using the Streptavidin-coated Donor Beads should be performed under subdued laboratory lighting of less than 100 lux. Alternatively, green filters (Roscolux filters #389 from Rosco, or the equivalent) can be applied to light fixtures. Incubation with AlphaScreen® Donor beads should always be performed in the dark. For example, assay reactions in a microplate can be covered with an opaque microplate.
- Sodium azide should not be added to stock solutions or assay components. Final concentrations of sodium azide higher than 0.001 % will decrease the AlphaLISA signal.
- Spin down tubes briefly before use to improve recovery of content (2,000 x g, 10-15 sec). Resuspend all reagents by vortexing before use.
- Use Milli-Q® grade water (18 MΩ•cm) to dilute the 5X AlphaLISA Universal Buffer.
- 1X AlphaLISA Universal Assay Buffer contains PBS, pH 7.5, 0.1% BSA, 0.01% Proclin-300. 1X AlphaLISA Universal Assay Buffer is used in the titration assay described below (Quality Control Protocol). Optimization of this assay buffer might be necessary in other assay types.
- Small volumes may be prone to evaporation. It is recommended to cover microplates with TopSeal-A Adhesive Sealing Film to reduce evaporation during incubation. Microplates are read with the TopSeal-A Film on the plate.
- Total signal varies with temperature and incubation time. For consistent results, identical incubation times and temperature should be used for all plates.
- The AlphaLISA signal is detected with an EnVision Multilabel Reader equipped with the ALPHA option using the AlphaScreen standard settings (e.g. Total Measurement Time: 550 ms, Excitation Time: 180 ms, Mirror: D640as, Emission Filter: M570w, Center Wavelength 570 nm, Bandwidth 100 nm, Transmittance 75%).

## Protocol:

This protocol is recommended for generating one titration curve in a 25  $\mu\text{L}$  final assay volume (12 concentrations, triplicate determinations with manual pipetting). If more assay points are needed, volumes should be adjusted accordingly.

### 1) Preparation of 1X AlphaLISA Universal Assay Buffer:

Add 1 mL of 5X AlphaLISA Universal Assay Buffer to 4 mL  $\text{H}_2\text{O}$ .

### 2) Preparation of 1.7X Biotin-6 His-tagged protein IgG dilutions:

Prepare 1.7X dilutions in 1X AlphaLISA Universal Assay Buffer as follows:

Tube	Volume of GST, 6 His-tagged	Volume of Buffer ( $\mu\text{L}$ )	[GST, 6 His-tagged] (M) in 15 $\mu\text{L}$ (1.7X)	[GST, 6 His-tagged] (M) in 25 $\mu\text{L}$ final assay volume
A	21 $\mu\text{L}$ of 37 $\mu\text{M}$	131	5.1E-6	3.0E-6
B	60 $\mu\text{L}$ of tube A	120	1.7E-6	1.0E-6
C	60 $\mu\text{L}$ of tube B	140	5.1E-7	3.0E-7
D	60 $\mu\text{L}$ of tube C	120	1.7E-7	1.0E-7
E	60 $\mu\text{L}$ of tube D	140	5.1E-8	3.0E-8
F	60 $\mu\text{L}$ of tube E	120	1.7E-8	1.0E-8
G	60 $\mu\text{L}$ of tube F	140	5.1E-9	3.0E-9
H	60 $\mu\text{L}$ of tube G	120	1.7E-9	1.0E-9
I	60 $\mu\text{L}$ of tube H	140	5.1E-10	3.0E-10
J	60 $\mu\text{L}$ of tube I	120	1.7E-10	1.0E-10
K	60 $\mu\text{L}$ of tube J	140	5.1E-11	3.0E-11
L	0	120	0	0

### 3) Preparation of 5X AlphaLISA Acceptor beads (100 $\mu\text{g}/\text{mL}$ ):

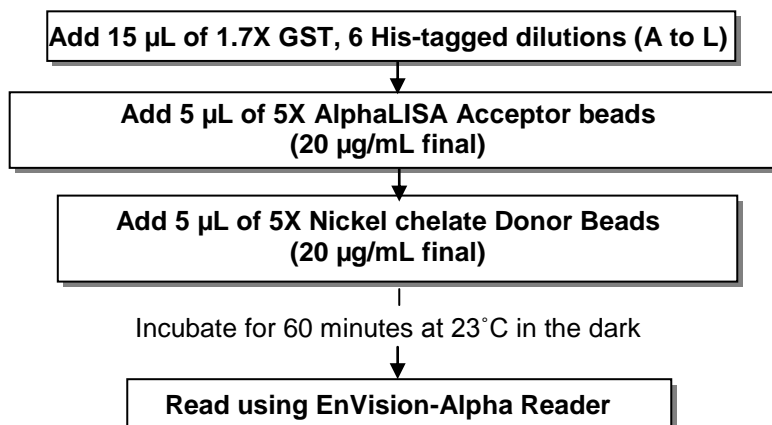
Add 5  $\mu\text{L}$  of 5 mg/mL AlphaLISA beads to 245  $\mu\text{L}$  of 1X AlphaLISA Universal Assay Buffer.

### 4) Preparation of 5X Streptavidin-coated Donor Beads (100 $\mu\text{g}/\text{mL}$ ):

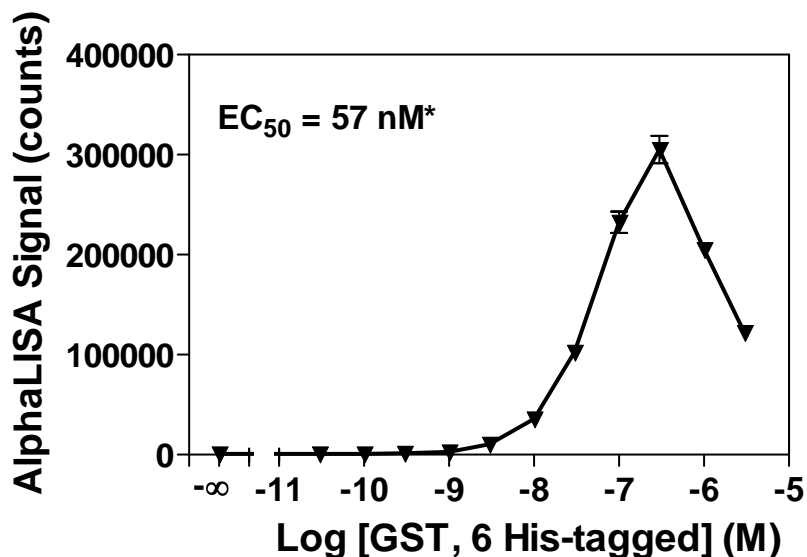
Keep the beads under subdued laboratory lighting.

Add 5  $\mu\text{L}$  of 5 mg/mL Nickel chelate Donor Beads to 245  $\mu\text{L}$  of 1X AlphaLISA Universal Assay Buffer.

### 5) In an OptiPlate-384 microplate:



## Typical Product Data



\* The EC<sub>50</sub> value was determined following a non-linear regression analysis using the sigmoidal dose-response curve model with variable slope. Only assay points up to the maximum signal were used for EC<sub>50</sub> determination (in this case, up to 300 nM).

## Suggested Materials and Instrumentation

Please visit our website

[www.perkinelmer.com/AlphaTech](http://www.perkinelmer.com/AlphaTech)

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