

Alpha SureFire Technology

The Ultimate tools for Phosphoprotein research



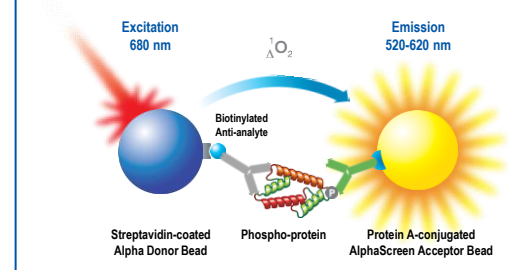
Alpha SureFire® assays are no-wash cellular kinase assays. While they exist in different formats (AlphaScreen® SureFire, AlphaLISA® SureFire Ultra, and Alpha SureFire Ultra Multiplex), all of them use PerkinElmer's exclusive bead-based technology and sandwich immunoassays for the detection of phosphorylated proteins in cells. Alpha SureFire assays are a quantitative alternative to Western Blotting, are automation-friendly, are easy to miniaturize, and detect both endogenous and recombinant proteins.

AlphaScreen SureFire

The original format available since 2005, AlphaScreen SureFire has a rich track record of small molecule screening successes:

- Uses protein A to capture one of the kit's antibodies
- 4-hour incubation protocol
- Need to order the AlphaScreen protein A kit in addition to the AlphaScreen SureFire kit

AlphaScreen SureFire Technology

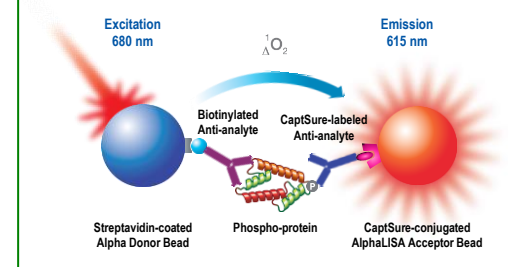


AlphaLISA SureFire Ultra

The labeling of one of the antibodies with CaptSure™, a small peptide tag, is recognized by CaptSure-antibody-coated beads, providing significant improvement over the AlphaScreen SureFire format:

- Lower background signal, improved sensitivity, and dynamic range
- No interference from extraneous antibodies; ideal for therapeutic antibody screening
- AlphaLISA beads are optimal for hemoglobin-containing samples
- Quicker assay: 2-hour incubation protocol
- Beads are included in the kit (i.e., order a single Cat#)

AlphaLISA SureFire Ultra Technology

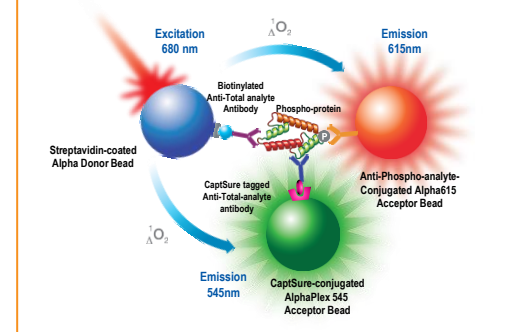


Alpha SureFire Ultra Multiplex

This format utilizes AlphaPlex™ technology to read multiple signals from the same well:

- Improves data quality with internal controls (e.g., total protein) or gathers more data (multiplex phosphorylation events) from a single experiment, resulting in significant time and cost savings
- Same features as the AlphaLISA SureFire Ultra, beads are included in the kit (i.e., order a single Cat#)

Alpha SureFire Ultra Multiplex Technology



ORDERING INFORMATION

September 2016

Analyte	AlphaScreen SureFire Kits				AlphaLISA SureFire Ultra Kits			
	500 data points	10,000 data points	50,000 data points	HV (100 data points)	500 data points	10,000 data points	50,000 data points	HV (100 data points)
Phospho-4EBP1 (Thr37/46)	TGR4ES500	TGR4ES10K	TGR4ES50K		ALSU-P4EBP-A500	ALSU-P4EBP-A10K	ALSU-P4EBP-A50K	ALSU-P4EBP-A-HV
Phospho-4EBP1 (Thr70)	TGR4E2S500	TGR4E2S10K	TGR4E2S50K					
Phospho-AKT1 (Thr308)	TGRA2S500	TGRA2S10K	TGRA2S50K					
Phospho-AKT1 (Ser473)	TGRA5S500	TGRA5S10K	TGRA5S50K					
Total AKT1	TGRTA1S500	TGRTA1S10K	TGRTA1S50K		ALSU-TAKT1-A500	ALSU-TAKT1-A10K	ALSU-TAKT1-A50K	ALSU-TAKT1-A-HV
Phospho-AKT1/2/3 (Thr308)	TGRA3S500	TGRA3S10K	TGRA3S50K		ALSU-PAKT-A500	ALSU-PAKT-A10K	ALSU-PAKT-A50K	ALSU-PAKT-A-HV
Phospho-AKT1/2/3 (Ser473)	TGRAS500	TGRAS10K	TGRAS50K					
Phospho-AKT1/2/3 (Ser473)	TGRA4S500	TGRA4S10K	TGRA4S50K	TGRA4SHV100	ALSU-PAKT-B500	ALSU-PAKT-B10K	ALSU-PAKT-B50K	ALSU-PAKT-B-HV
Total AKT1/2/3	TGRTAPS500	TGRTAPS10K	TGRTAPS50K	TGRTAPSHV100				
Phospho-ALK (Tyr1586)	TGRALS500	TGRALS10K	TGRALS50K					
Phospho-ALK (Tyr1604)	TGRAL2S500	TGRAL2S10K	TGRAL2S50K					
Total ALK	TGRTALS500	TGRTALS10K	TGRTALS50K					
Phospho-ATF-1 (Ser63)	TGRAF1S500	TGRAF1S10K	TGRAF1S50K					
Phospho-ATF-2 (Thr71)	TGRAF2S500	TGRAF2S10K	TGRAF2S50K					
Phospho-BAD (Ser112)	TGRBS500	TGRBS10K	TGRBS50K					
Phospho-BAD (Ser136)	TGRB2S500	TGRB2S10K	TGRB2S50K					
Phospho-β-Catenin (Ser45)	TGRBCS500	TGRBCS10K	TGRBCS50K					
Phospho-Caspase 9 (Ser196)	TGRC9S500	TGRC9S10K	TGRC9S50K					
Phospho-Chk1 (Ser345)	TGRCHK1S500	TGRCHK1S10K	TGRCHK1S50K					
Phospho-Chk2 (Thr68)	TGRCHK2S500	TGRCHK2S10K	TGRCHK2S50K					
Phospho-c-Jun (Ser63)	TGRCJS500	TGRCJS10K	TGRCJS50K					
Phospho-c-Jun (Ser73)	TGRCJ2S500	TGRCJ2S10K	TGRCJ2S50K					
Phospho-c-Met (Tyr1234/1235)	TGRCMS500	TGRCMS10K	TGRCMS50K					
Phospho-Cofilin (Ser3)	TGRCOF500	TGRCOFS10K	TGRCOF50K					
Phospho-CREB-1 (Ser133)	TGRCBS500	TGRCBS10K	TGRCBS50K		ALSU-PCREB-A500	ALSU-PCREB-A10K	ALSU-PCREB-A50K	ALSU-PCREB-A-HV
Phospho-EGF Receptor (Tyr1068)	TGRERS500	TGRERS10K	TGRERS50K		ALSU-PEGFR-A500	ALSU-PEGFR-A10K	ALSU-PEGFR-A50K	ALSU-PEGFR-A-HV
Phospho-eIF2alpha (Ser51)					ALSU-PEIF2-A500	ALSU-PEIF2-A10K	ALSU-PEIF2-A50K	ALSU-PEIF2-A-HV
Phospho-eIF4E (Ser209)	TGREIF4S500	TGREIF4S10K	TGREIF4S50K		ALSU-PEIF4-A500	ALSU-PEIF4-A10K	ALSU-PEIF4-A50K	ALSU-PEIF4-A-HV
Phospho-Elk-1 (Ser383)	TGRELKS500	TGRELKS10K	TGRELKS50K					
Phospho-ErbB2 (Tyr1221/1222)	TGREB2S500	TGREB2S10K	TGREB2S50K					
Phospho-ERK1/2 (T202/Y204)	TGRESB500*	TGRESB10K*	TGRESB50K*	TGRESBHV100*	ALSU-PERK-A500	ALSU-PERK-A10K	ALSU-PERK-A50K	ALSU-PERK-A-HV
Total ERK1/2	TGRTESB500*	TGRTESB10K*	TGRTESB50K*	TGRTESBHV100*	ALSU-TERK-A500	ALSU-TERK-A10K	ALSU-TERK-A50K	ALSU-TERK-A-HV
Total GAPDH	TGRGDS500	TGRGDS10K	TGRGDS50K		ALSU-TGAPD-A500	ALSU-TGAPD-A10K	ALSU-TGAPD-A50K	ALSU-TGAPD-A-HV
Phospho-GSK3α (Ser21)	TGRGAS500	TGRGAS10K	TGRGAS50K					
Phospho-GSK3β (Ser9)	TGRGBS500	TGRGBS10K	TGRGBS50K		ALSU-PGS3B-A500	ALSU-PGS3B-A10K	ALSU-PGS3B-A50K	ALSU-PGS3B-A-HV
Phospho-Histone H3 (Ser10)	TGRH3S500	TGRH3S10K	TGRH3S50K					
Phospho-HSP27 (Ser82)	TGRHS27S500	TGRHS27S10K	TGRHS27S50K					
Phospho-IGF1 Receptor β (Tyr1135/1136)					ALSU-PIGFR-A500	ALSU-PIGFR-A10K	ALSU-PIGFR-A50K	ALSU-PIGFR-A-HV
Phospho-IκBa (Ser32/36)	TGRIKS500	TGRIKS10K	TGRIKS50K					
Total IκBa	TGRTIKS500	TGRTIKS10K	TGRTIKS50K					
Phospho-IKKα (Ser176/180)	TGRKAS500	TGRKAS10K	TGRKAS50K		ALSU-PIKKA-A500	ALSU-PIKKA-A10K	ALSU-PIKKA-A50K	ALSU-PIKKA-A-HV
Phospho-IKKβ (Ser177/181)	TGRKBS500	TGRKBS10K	TGRKBS50K					
Phospho-Insulin Receptor β (Tyr1150/1151)	TGRIRS500	TGRIRS10K	TGRIRS50K		ALSU-PINR-A500	ALSU-PINR-A10K	ALSU-PINR-A50K	ALSU-PINR-A-HV
Phospho-JNK1/3 (Thr183/Tyr185)	TGRJS500	TGRJS10K	TGRJS50K					
Phospho-JNK1/2/3 (Thr183/Tyr185)	TGRJPS500	TGRJPS10K	TGRJPS50K		ALSU-PJNK-A500	ALSU-PJNK-A10K	ALSU-PJNK-A50K	ALSU-PJNK-A-HV
Total JNK1/2/3	TGRTJS500	TGRTJS10K	TGRTJS50K					
Phospho-MEK1 (Ser218/222)					ALSU-PMEK1-A500	ALSU-PMEK1-A10K	ALSU-PMEK1-A50K	ALSU-PMEK1-A-HV
Total MEK1					ALSU-TMEK1-A500	ALSU-TMEK1-A10K	ALSU-TMEK1-A50K	ALSU-TMEK1-A-HV
Phospho-MKK3/6 (Ser189/Ser207)	TGRMK3S500	TGRMK3S10K	TGRMK3S50K					
Phospho-MKK4 (Ser257/Thr261)	TGRMK4S500	TGRMK4S10K	TGRMK4S50K					
Phospho-mTOR (Ser2448)	TGRMTS500	TGRMTS10K	TGRMTS50K		ALSU-PMTOR-A500	ALSU-PMTOR-A10K	ALSU-PMTOR-A50K	ALSU-PMTOR-A-HV
Phospho-NFκB p65 (Ser536)	TGRNFS500	TGRNFS10K	TGRNFS50K	TGRNFSHV100	ALSU-PNFKB-A500	ALSU-PNFKB-A10K	ALSU-PNFKB-A50K	ALSU-PNFKB-A-HV
Total NFκB p65	TGRTNFS500	TGRTNFS10K	TGRTNFS50K	TGRTNFSHV100				
Phospho-p38 MAPK (Thr180/Tyr182)	TGR38S500	TGR38S10K	TGR38S50K		ALSU-PP38-A500	ALSU-PP38-A10K	ALSU-PP38-A50K	ALSU-PP38-A-HV
Total p38 MAPK	TGRT38S500	TGRT38S10K	TGRT38S50K		ALSU-TP38-A 500	ALSU-TP38-A 10K	ALSU-TP38-A 50K	ALSU-TP38-A -HV
Phospho-p53 (Ser15)	TGRP53S500	TGRP53S10K	TGRP53S50K	TGRP53SHV100				
Phospho-p53 (Ser392)	TGRP532S500	TGRP532S10K	TGRP532S50K					
Total p53	TGRT53S500	TGRT53S10K	TGRT53S50K	TGRT53SHV100				
Phospho-p70S6K (Thr229)	TGR70S500	TGR70S10K	TGR70S50K					
Phospho-p70S6K (Thr389)	TGR70S500	TGR70S10K	TGR70S50K		ALSU-PP70-A500	ALSU-PP70-A10K	ALSU-PP70-A50K	ALSU-PP70-A-HV
Phospho-p70S6K (Thr421/Ser424)	TGR702S500	TGR702S10K	TGR702S50K					
Total p70S6K	TGRT70S500	TGRT70S10K	TGRT70S50K					
Phospho-PDK1 (Ser241)	TGRPS500	TGRPS10K	TGRPS50K					
Phospho-S6RP (Ser235/236)	TGRS6PS500	TGRS6PS10K	TGRS6PS50K					
Phospho-RPS6 (Ser240/244)	TGRS6P2S500	TGRS6P2S10K	TGRS6P2S50K		ALSU-PS6R-A500	ALSU-PS6R-A10K	ALSU-PS6R-A50K	ALSU-PS6R-A-HV
Phospho-SLP76 (Ser376)					ALSU-PSLP-A500	ALSU-PSLP-A10K	ALSU-PSLP-A50K	ALSU-PSLP-A-HV

* These kits are new versions of the Phospho- and total ERK AlphaScreen SureFire kits, where the polyclonal antibodies used in the original versions have been replaced by monoclonal antibodies. The signal-to-background and sensitivity of these new kits is at a minimum comparable, and in many instances is superior, to the original version.

Analyte	AlphaScreen <i>SureFire</i> Kits				AlphaLISA <i>SureFire Ultra</i> Kits			
	500 data points	10,000 data points	50,000 data points	HV (100 data points)	500 data points	10,000 data points	50,000 data points	HV (100 data points)
Phospho-SMAD1 (Ser463/465)	TGRSM1S500	TGRSM1S10K	TGRSM1S50K		ALSU-PSM1-A500	ALSU-PSM1-A10K	ALSU-PSM1-A50K	ALSU-PSM1-A-HV
Phospho-SMAD2 (Ser465/467)	TGRSM2S500	TGRSM2S10K	TGRSM2S50K					
Phospho-SMAD3 (Ser423/425)	TGRSM3S500	TGRSM3S10K	TGRSM3S50K		ALSU-PSM3-A500	ALSU-PSM3-A10K	ALSU-PSM3-A50K	ALSU-PSM3-A-HV
Phospho-STAT1 (Tyr701)	TGRS1S500	TGRS1S10K	TGRS1S50K		ALSU-PST1-A500	ALSU-PST1-A10K	ALSU-PST1-A50K	ALSU-PST1-A-HV
Phospho-STAT1 (Ser727)					ALSU-PST1-B500	ALSU-PST1-B10K	ALSU-PST1-B50K	ALSU-PST1-B-HV
Phospho-STAT3 (Tyr705)	TGRS3S500	TGRS3S10K	TGRS3S50K	TGRS3SHV100	ALSU-PST3-A500	ALSU-PST3-A10K	ALSU-PST3-A50K	ALSU-PST3-A-HV
Total STAT3	TGRTS3S500	TGRTS3S10K	TGRTS3S50K	TGRTS3SHV100	ALSU-TST3-A500	ALSU-TST3-A10K	ALSU-TST3-A50K	ALSU-TST3-A-HV
Phospho-STAT4 (Tyr693)					ALSU-PST4-A500	ALSU-PST4-A10K	ALSU-PST4-A50K	ALSU-PST4-A-HV
Phospho-STAT5 (Tyr694/699)	TGRS5S500	TGRS5S10K	TGRS5S50K		ALSU-PST5-B500**	ALSU-PST5-B10K**	ALSU-PST5-B50K**	ALSU-PST5-B-HV**
Total STAT5					ALSU-TST5-A500	ALSU-TST5-A10K	ALSU-TST5-A50K	ALSU-TST5-A-HV
Phospho-Topoisomerase IIa (Ser1106)	TGRT2A2S500	TGRT2A2S10K	TGRT2A2S50K					
Phospho-Topoisomerase IIa (Thr1343)	TGRT2AS500	TGRT2AS10K	TGRT2AS50K					
Total Topoisomerase IIa	TGRTT2AS500	TGRTT2AS10K	TGRTT2AS50K					
Phospho-VEGF Receptor 2 (Tyr1175)	TGRVRS500	TGRVRS10K	TGRVRS50K		ALSU-PVGFR-A500	ALSU-PVGFR-A10K	ALSU-PVGFR-A50K	ALSU-PVGFR-A-HV

** This kit is a new version of the Phospho-STAT5 AlphaLISA *SureFire Ultra* kit, where one of the antibodies used in the original version (and discontinued by our provider) has been replaced by another antibody. The signal-to-background and sensitivity of this new kit is at a minimum comparable, and in many instances is superior, to the original version.

Kit type	Analyte	Alpha <i>SureFire Ultra</i> Multiplex Kits			
		500 data points	10,000 data points	50,000 data points	HV (100 data points)
Dual Target	p-AKT 1/2/3 (Ser473) (Eu) + Total AKT1 (Tb)	MPSU-PTAKT-K500	MPSU-PTAKT-K10K	MPSU-PTAKT-K50K	MPSU-PTAKT-K-HV
	p-ERK 1/2 (Eu) + Total ERK (Tb)	MPSU-PTERK-K500	MPSU-PTERK-K10K	MPSU-PTERK-K50K	MPSU-PTERK-K-HV
	p-AKT(Ser473) (Eu) + p-ERK (Tb)	MPSU-PAKER-K500	MPSU-PAKER-K10K	MPSU-PAKER-K50K	MPSU-PAKER-K-HV
Single Target: to be combined with any existing AlphaLISA <i>SureFire Ultra</i> kit	p-ERK (Eu) (directly coupled)	MPSU-PERK-E500	MPSU-PERK-E10K	MPSU-PERK-E50K	MPSU-PERK-E-HV
	p-AKT (Ser473) (Eu) (directly coupled)	MPSU-PAKT-E500	MPSU-PAKT-E10K	MPSU-PAKT-E50K	MPSU-PAKT-E-HV

AlphaScreen *SureFire* IgG (Protein A Based) Detection Kits

These kits contain Protein A Acceptor Beads and Streptavidin Donor Beads that are needed when working with AlphaScreen *SureFire* kits.

Beads	500 data points	10,000 data points	50,000 data points	HV (100 data points)
AlphaScreen General IgG (Protein A based) Detection Kit (384-well format)	6760617C	6760617M	6760617R	
AlphaScreen <i>SureFire</i> HV IgG (Protein A) Detection Kit (96-well format)				6760617HV

AlphaScreen *SureFire* Supplementary Buffers

Enough buffer is provided in the kits if following the standard protocol, but you may want to order more if using a different protocol.

Buffers	10 mL	100 mL
<i>SureFire</i> Lysis Buffer (5X)	TGRLB10ML	TGRLB100ML
<i>SureFire</i> Activation Buffer (50X)	TGRAB10ML	TGRAB100ML
<i>SureFire</i> Activation Buffer B (50X)	TGRABB10ML	TGRABB100ML
<i>SureFire</i> Activation Buffer C (50X)	TGRABC10ML	TGRABC100ML
<i>SureFire</i> Dilution Buffer (1X)	TGRDB10ML	TGRDB100ML

AlphaScreen *SureFire* Supplementary Control Lysates

Enough control lysates are provided in the kits if following the standard protocol, but if you need more for specific applications please contact us to request custom AlphaScreen *SureFire* control lysates.

AlphaLISA SureFire Ultra Supplementary Beads

Enough beads are provided in the kits if following the standard protocol, but you may want to order more if using a different protocol.

Beads	500 data points (60 µL)	10,000 data points (1.2 mL)	50,000 data points (6 mL)
Alpha Streptavidin Donor Beads (2 mg/mL)	ALSU-ASDB-0.06mL	ALSU-ASDB-1.2mL	ALSU-ASDB-6mL
AlphaLISA SureFire Ultra CaptSure Acceptor Beads	ALSU-ACAB-0.06mL	ALSU-ACAB-1.2mL	ALSU-ACAB-6mL

AlphaLISA SureFire Ultra Supplementary Buffers

Enough buffer is provided in the kits if following the standard protocol, but you may want to order more if using a different protocol.

Buffers	10 mL	100 mL
SureFire Ultra Lysis Buffer (5X)	ALSU-LB-10mL	ALSU-LB-100mL
SureFire Ultra Activation Buffer (50X)	ALSU-AB-10mL	ALSU-AB-100mL
SureFire Ultra Activation Buffer B (50X)	ALSU-ABB-10mL	ALSU-ABB-100mL
SureFire Ultra Activation Buffer C (50X)	ALSU-ABC-10mL	ALSU-ABC-100mL
SureFire Ultra Dilution Buffer (1X)	ALSU-DB-10mL	ALSU-DB-100mL

AlphaLISA SureFire Ultra Supplementary Control Lysates

Enough control lysates are provided in the kits if following the standard protocol, but if you need more for specific applications, they are available separately. For example, the phospho-ERK control lysate Part# is ALSU-PERK-A-L. Please consult our WEB site to find the references for other kits control lysates.

Alpha SureFire Ultra Multiplex Supplementary Beads

Enough beads are provided in the kits if following the standard protocol, but you may want to order more if using a different protocol. These beads can also be substituted to the AlphaLISA (Eu) beads in order to read the target in another wavelength channel.

Beads	500 data points (60 µL)	10,000 data points (1.2 mL)	50,000 data points (6 mL)
Alpha 545 (Tb) SureFire Ultra CaptSure Acceptor Beads	MPSU-ACAT-0.06mL	MPSU-ACAT-1.2mL	MPSU-ACAT-6mL

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