SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for FEMTOMAX-020

Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate

Overview

Description:	Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate for Microwell and/or Membrane (2 component system) - FEMTOMAX-020
Item No.:	FEMTOMAX-020
Size:	20 mL
Applications:	WB, ELISA

Product Details

Background:	FemtoMax™ Super Sensitive Chemiluminescent HRP Substrate is an extremely sensitive, nonradioactive, enhanced luminol-based chemiluminescent substrate for the detection of horseradish peroxidase (HRP). FemtoMax™ is designed for both Western blotting and enzyme-linked immunosorbent assay (ELISA) use. FemtoMax™ easily allows for the detection of femtogram (10-15) amounts of antigen using photographic film or other imaging methods, including highly sensitive CCD cameras. Blots can be repeatedly exposed to X-ray film to obtain optimal results or stripped of detection reagents and re-probed. Use the same blotting conditions for FemtoMax™ as you would when using Amersham ECL Plus™ Substrate or Pierce SuperSignal® West Femto Substrate.
Synonyms:	Peroxidase Substrate, ECL HRP Substrate, Chemiluminescent Femtomax™ Super Sensitive horseradish peroxidase (HRP) Substrate For Microwell And/Or Membrane (2 Component System)

Target Details

Relevant Links:

- FemtoMax SDS

Application Details

Tested Applications:	WB
Suggested Applications:	ELISA (Based on references)

Application Note:	Prepare FemtoMax™ Super Sensitive Chemiluminescent HRP Substrate for use in microwell or membrane applications by mixing 1 mL of Luminol Reagent (Reagent A) with 1 mL of Reaction Buffer (Reagent B). Mix well. Protect from light. Larger or smaller volumes of the substrate can be prepared by mixing components at the same 1:1 ratio. FemtoMax™ Super Sensitive Chemiluminescent HRP Substrate is a highly sensitive detection reagent. Always carefully optimize all components of individual assays (antigens, antibodies, conjugates…) to minimize background reactivity associated with non-specific binding.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1X
WB:	1X

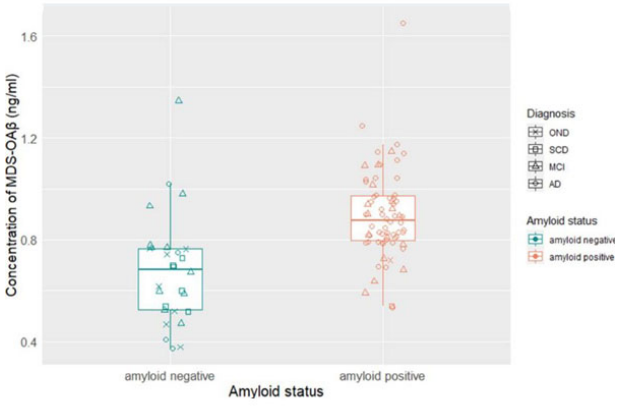
Formulation

Physical State:	Liquid - clear, colorless, odorless

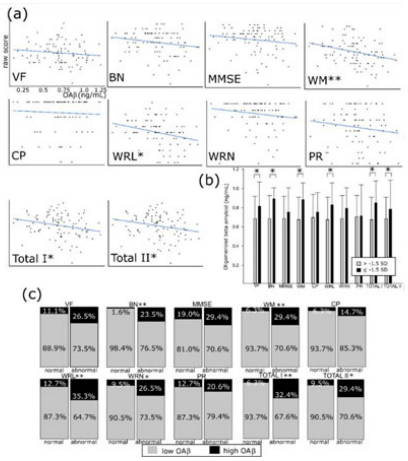
Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store container at 4° C prior to opening. Protect from moisture and light. No special shipping conditions or precautions are required.

Images



ELISA
Concentration of plasma MDS-OAβ according to groups. The incubated plasma sample mixture and serially diluted standard samples were added to respective wells, and the plates were incubated at room temperature for 1 hour. Afterwards, 100 µL/well of enhanced chemiluminescence substrate solution (p/n Femtomax) was added, and the Relative Luminescence Unit (RLU) signal was detected using a Victor 3TM multi-spectrophotometer.
Abbreviations: AD, Alzheimer's disease; MCI, mild cognitive impairment; MDS-OAβ, Multimer Detection System-Oligomeric Amyloid-β; OND, other neurodegenerative disease; SCD, subjective cognitive decline.
Fig 1. PMID: 33958861.

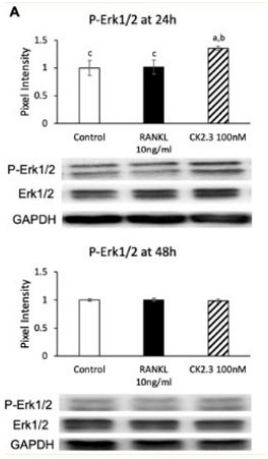


ELISA

The subtests of the Korean version of Consortium to Establish a Registry for Alzheimer's disease (CERAD-K) and plasma oligomerized beta amyloid (OAβ). (a) Raw scores of the CERAD-K and OAβ concentration. (b) The abnormal CERAD group (below −1.5 standard deviation of age/sex/education adjusting norms) in verbal fluency, naming, word memory/recall, and total scores showed higher OAβ concentration compared with control. (c) Abnormality in naming, word memory/recall/recognition, and total scores are significantly more frequent in high OAβ groups (≥ 0.78 ng/mL). SD—standard deviation; VF—verbal fluency; BN—Boston naming; MMSE—mini-mental status examination; WM—word list memory; CP—constructional praxis; WRL—word list recall; WRN—word list recognition; and PR—praxis recall. Total I is a sum of subtests except MMSE and PR and Total II is a sum except MMSE. * $p < 0.05$. ** $p < 0.01$.

To increase the sensitivity of detection, 100 µL/well of enhanced chemiluminescence substrate solution (p/n Femtomax) was added, and the Relative Luminescence Unit (RLU) signal was detected using a Victor 3TM multi-spectrophotometer.

Fig 2. PMID: 32326061.

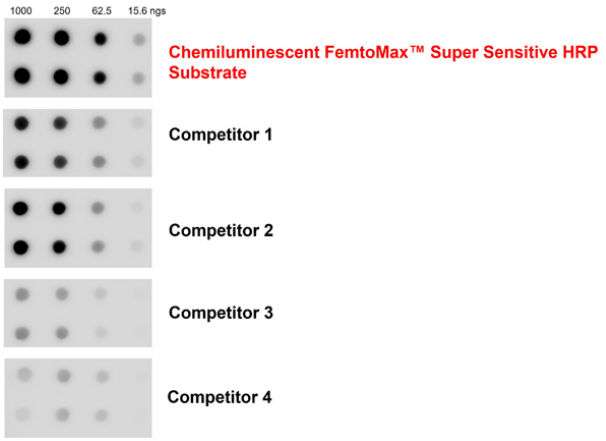


Western Blot

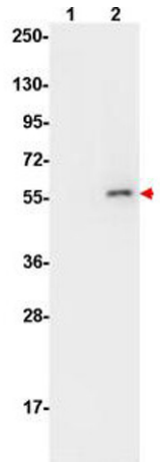
Effect of CK2.3 on p-Erk 1/2 in RANKL-induced osteoclastogenesis. CK2.3 increased p-Erk 1/2 after 24 h of stimulation in RAW264.7 cells, as determined by (A) Western blotting.

The blot was incubated in 3% BSA for 1 h to block non-specific binding. Antibodies used at 1:1000 dilutions (in 1% BSA) overnight at 4 °C. Followed by incubation with the secondary antibody HRP anti-rabbit at a 1:5000 dilution (in 1% BSA). The blot was incubated in Chemiluminescent FemtoMax Super Sensitive HRP Substrate (p/n Femtomax) for 2 min. Fig 6. PMID: 32660129.

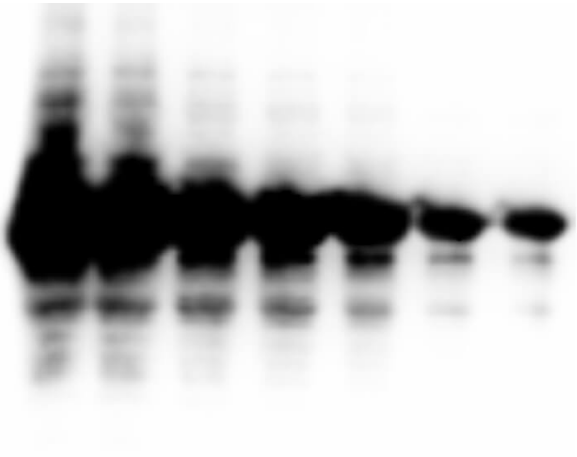
Bottle
Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate for Microwell and/or Membrane (2 component system)



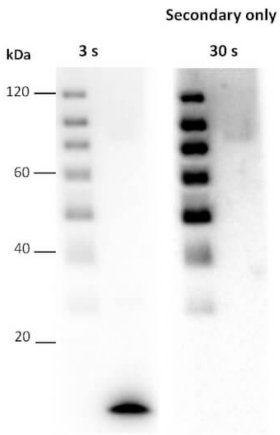
Dot Blot
Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate and competitor comparison.
GAPDH protein was dotted on a nitrocellulose membrane, load 1000, 250, 62.5, 15.6ngs. The membrane was blocked for one hour at room temperature. Primary antibody: Rb anti-GAPDH diluted 1:2000 and incubated at 4°C overnight. After washing, secondary antibody: Gt anti-Rb IgG-HRP diluted 1:50,000 at room temperature for 2 hours. Detection: Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate or competitor 1-4.



Western Blot
Western Blot of Mouse Anti-AKT pS473 antibody using Femtomax.
Lane 1: non-phosphorylated AKT in untreated cells.
Lane 2: phosphorylated AKT (indicated by arrowhead at ~56 kDa) on PDGF stimulated NIH/3T3 cell lysates.
Load: 10 µg per lane.
Primary antibody: AKT pS473 antibody at 1:10,000 in TBS with 0.05% Tween-20 with 1% BSA, for 1 h at 4° C.
Secondary antibody: HRP conjugated Gt-a-Mouse IgG (p/n 610-103-121) was used at a 1:20,000 dilution for 1 h at 4° C with Chemiluminescent FemtoMax™ Super Sensitive HRP Substrate (p/n FEMTOMAX-100).



Western Blot
Western Blot of anti-GST tag antibody. Lane 1: Recombinant GST tagged recombinant protein 5 ug. Lane 2: Recombinant GST tagged recombinant protein 2 ug. Lane 3: Recombinant GST tagged recombinant protein 1 ug. Lane 4: Recombinant GST tagged recombinant protein 500 ng. Lane 5: Recombinant GST tagged recombinant protein 250 ng. Lane 6: Recombinant GST tagged recombinant protein 100 ng. Lane 7: Recombinant GST tagged recombinant protein 50 ng. Primary antibody: anti-GST antibody at 1:1000 for overnight at 4°C. Secondary antibody: donkey secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 78 kDa.



Western Blot
Western blot detection using Chemiluminescent FemtoMax™ HRP Substrate. rPARP1 domain detected at 11 kDa after 3 sec exposure using primary antibody rabbit anti-serum 1:500 overnight, at 4°C. Secondary antibody Peroxidase Goat Anti-Rabbit IgG Antibody at 1:40,000. All incubations were performed in Blocking Buffer for Fluorescent Western Blocking (p/n MB-070).

References

- Teske NC et al. Pericytes are protective in experimental pneumococcal meningitis through regulating leukocyte infiltration and blood-brain barrier function. *J Neuroinflammation.* (2023)
- Chithelen J et al. The Sphingolipid Inhibitors Ceranib-2 and SKI-II Reduce Measles Virus Replication in Primary Human Lymphocytes: Effects on mTORC1 Downstream Signaling. *Front Physiol.* (2022)
- Bakri FG et al. Second Report of Chronic Granulomatous Disease in Jordan: Clinical and Genetic Description of 31 Patients From 21 Different Families, Including Families From Lybia and Iraq. *Front Immunol.* (2021)
- Pyun JM et al. Plasma Amyloid-β Oligomerization Tendency Predicts Amyloid PET Positivity. *Clinical Interventions in Aging* (2021)
- Kim MK et al. A novel GPR119 agonist DA-1241 preserves pancreatic function via the suppression of ER stress and increased PDX1 expression. *Biomed Pharmacother.* (2021)

- Mollin M et al. Clinical, functional and genetic characterization of 16 patients suffering from chronic granulomatous disease variants – identification of 11 novel mutations in CYBB. *Clin Exp Immunol.* (2021)
- Durbano HW et al. Aberrant BMP2 Signaling in Patients Diagnosed with Osteoporosis. *Int J Mol Sci.* (2020)
- Zhang L et al. Functional analysis of miR-767-5p during the progression of hepatocellular carcinoma and the clinical relevance of its dysregulation. *Histochem Cell Biol.* (2020)
- Nguyen J et al. A Synthetic Peptide, CK2. 3, Inhibits RANKL-Induced Osteoclastogenesis through BMPRIa and ERK Signaling Pathway. *J Dev Biol.* (2020)
- Lee JJ et al. Association of Plasma Oligomerized Beta Amyloid with Neurocognitive Battery Using Korean Version of Consortium to Establish a Registry for Alzheimer's Disease in Health Screening Population. *Diagnostics (Basel, Switzerland)* (2020)
- Youn YC. et al. Blood Amyloid-β Oligomerization as a Biomarker of Alzheimer's Disease: A Blinded Validation Study. *J Alzheimers Dis.* (2020)
- Brault J. et al. NOX4 is the main NADPH oxidase involved in the early stages of hematopoietic differentiation from human induced pluripotent stem cells. *Free Radic Biol Med.* (2020)
- Grafen A et al. Use of acid ceramidase and sphingosine kinase inhibitors as antiviral compounds against measles virus infection of lymphocytes in vitro. *Front Cell Dev Biol* (2019)
- John V et al. Caveolin-1 controls vesicular TLR2 expression, p38 signaling and T cell suppression in BCG infected murine monocytic myeloid-derived suppressor cells. *Front Immunol.* (2019)
- Kim TH et al. Additive effects of evogliptin in combination with pioglitazone on fasting glucose control through direct and indirect hepatic effects in diabetic mice. *Eur J Pharmacol.* (2018)
- Tiwarekar V et al. APOBEC3G-regulated host factors interfere with measles virus replication: role of REDD1 and mammalian TORC1 inhibition. *J Virol.* (2018)
- Dietrich K et al. Health-Relevant Phenotypes in the Offspring of Mice Given CAR Activators Prior to Pregnancy. *Drug Metab Dispos.* (2018)
- Chung et al. Niche-mediated BMP/SMAD signaling regulates lung alveolar stem cell proliferation and differentiation. *Development* (2018)
- An SSA et al. Dynamic changes of oligomeric amyloid β levels in plasma induced by spiked synthetic Aβ42. *Alzheimer's Research & Therapy* (2017)
- Wang MJ et al. Oligomeric forms of amyloid-β protein in plasma as a potential blood-based biomarker for Alzheimer's disease. *Alzheimer's Research & Therapy* (2017)
- Barfeld SJ et al. c-Myc antagonises the transcriptional activity of the androgen receptor in prostate cancer affecting key gene networks. *EBioMedicine.* (2017)
- Tadokoro T et al. BMP signaling and cellular dynamics during regeneration of airway epithelium from basal progenitors. *Development.* (2016)
- Carter LG et al. Exercise improves glucose disposal and insulin signaling in pregnant mice fed a high fat diet. *J Diabetes Metab.* (2015)
- Wache C et al. Myeloid-related protein 14 promotes inflammation and injury in meningitis. *J Infect Dis.* (2015)

- Beaumel S et al. Identification of NOX2 regions for normal biosynthesis of cytochrome b558 in phagocytes highlighting essential residues for p22phox binding. *Biochem J.* (2014)
- Hohne C et al. High mobility group box 1 prolongs inflammation and worsens disease in pneumococcal meningitis. *Brain.* (2013)
- Huang BW et al. Transcriptional regulation of the human ferritin gene by coordinated regulation of Nrf2 and protein arginine methyltransferases PRMT1 and PRMT4. *FASEB J.* (2013)
- Kim MK et al. Differential protective effects of exenatide, an agonist of GLP-1 receptor and Piragliatin, a glucokinase activator in beta cell response to streptozotocin-induced and endoplasmic reticulum stresses. *PLoS One.* (2013)
- Hoegen T et al. The NLRP3 inflammasome contributes to brain injury in pneumococcal meningitis and is activated through ATP-dependent lysosomal cathepsin B release. *J Immunol.* (2011)

Disclaimer