DATA SHEET

Jena Bioscience

FORMOscreen®

Antibody Formulation Screen

Cat. No.	Amount
CS-360	96 solutions (230 µl each)

developed by 2bind molecular interactions

For research use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at 4 °C

Shelf Life: 6 months

Applications:

- Ideal for antibody stability screening and unfolding analysis
- Allows for rapid characterization of buffer influence on chemical, thermal, colloidal, and conformational stability, long-term storage stability, forced-degradation resistance, as well as biochemical activity and antigen-binding
- Enables quick-and-easy buffer optimization and pre-formulation
- Use with your biophysical or biochemical read-out of choice (e.g. DSF, nanoDSF, DSC, DLS, LC-MS, SEC-HPLC, ELISA, etc.)
- Can just as well be used for stability analysis and buffer optimization of any kind of protein

Description:
The FORMOscreen® allows for rapid characterization of your antibody of choice in 96 pre-made buffer conditions, derived from the formulations of therapeutic antibodies approved by the FDA (Food and Drug Administration, USA) and the EMA (European Medicines Agency, EU). The substance combinations have already shown to have positive effects on antibody formulation and stability and thus provide optimal starting points for developing pre-formulations for therapeutic and diagnostic antibody candidates.

Content:
Deep-well plate with 96 FDA- and EMA-approved formulations of therapeutic antibodies provided as ready-to-use 5x stock solutions (230 µl each) with a wide range of different buffer compositions (1x at 25 °C):

- pH: 4.6 – 8.0 (acetate, citrate, glycine, histidine, phosphate)
- Salts: 3 – 200 mM (potassium chloride, sodium chloride)
- Amino acids: 1 – 300 mM (glycine, glutamate, methionine, proline)
- Sugars: 12 – 300 mM (maltose, mannitol, sorbitol, sucrose, trehalose)
- Detergents: 0 – 1.6% (polysorbate 20, polysorbate 80)

The FORMOscreen® buffers are formulated using high-purity chemicals and ultrapure water (>18.0 MΩ) and are sterile-filtered using 0.22 µm filters. No preservatives are added. Prepared at room temperature. Please note that the storage buffer of the

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target antibody or protein may affect the final pH and/or buffer composition of the buffers. It is thus recommended to work with highly-concentration target antibody or protein stock solutions in order to generate a maximum dilution effect when diluting the target antibody or protein into the buffers.

Protocol:
Before using the plate, check the seal for any defects.
1) Let the plate adjust to room temperature.
2) Centrifuge the plate at 300 g for 60 seconds.
3) Carefully remove seal and avoid spilling buffers into adjacent wells.
4) Check all wells for possible precipitations.
In case of visible precipitates, carefully resuspend the respective buffers by pipetting up and down. Buffers in rows G and H and buffer A12 can be more susceptible to precipitation. Ensure proper resuspension before using. In case a 5x-stock solution of a buffer cannot be resuspended completely, dilution of the buffer to its final 1x concentration will ensure proper solving of buffer components. This does not impair buffer quality and the buffer can still be used normally.
5) Prepare the assay samples by diluting your target antibody or protein to the final required assay concentration while also bringing the buffers to 1x final concentration.
Example: Antibody stock concentration 8 mg/mL, required antibody assay concentration 1 mg/mL, final assay volume of 50 µL:
- Mix 10 µL of each 5x buffer stock with 33.75 µL ultrapure water
- Add 6.25 µL antibody
- The antibody will then be at 1 mg/mL in the final 1x buffer
6) Alternatively, in order to generate 1x buffer solutions, dilute the 5x stocks 1:5 in ultrapure water, e.g. mix 100 µl of 5x stocks with 400 µl ultrapure water and mix carefully to get 500 µl 1x buffer solutions.

Application Guidelines:
Usage of the FORMOscreen® could give rise to liability for patent infringement, because the use of the provided buffers with their corresponding original product/antibody as listed below is protected by patents. Purchase of the FORMOscreen® grants no right for use of these antibodies with the supplied patent-protected buffers.

A1: Actemra/Tocilizumab
A2: Adcetris/Brentuximab Vedotin
A3: Aimovig/Erenumab-Aooe
A4: Amjevita/Adalimumab-Atto
A5: Anthim/Obiltoxaximab
A6: Arzerra/Ofatumumab
A7: Avastin/Bevacizumab
A8: Arcalyst/Rilonacept
A9: Benlysta/Belimumab
A10: Besponsa/Inotuzumab Ozogamicin
A11: Eylea/Aflibercept
A12: Bexxar/Tositumomab
B1: Ajovy/Fremanezumab-Vfrm
B2: Blincyto/Blinatumomab
B3: Campath/Alemtuzumab
B4: Cimzia/Certolizumab Pegol
B5: Evenity/Romosozumab-Aqqg
B6: Cinqair/Reslizumab
B7: Cosentyx/Secukinumab
B8: Crysvita/Burosumab-Twza
B9: Cyltezo/Adalimumab-Adbm
B10: Cyramza/Ramucirumab
B11: Dupixent/Dupilumab
B12: Empliciti/Elotuzumab
C1: Enbrel/Etanercept
C2: Entyvio/Vedolizumab
C3: Erbitux/Cetuximab
C4: Fasenra/Benralizumab
C5: Hemlibra/Emicizumab-Kxwh
C6: Herceptin/Trastuzumab
C7: Cablivi/Caplacizumab-Yhdp
C8: Erelzi/Etanercept-Szzs
C9: Emgality/Galcanezumab-Gnlm
C10: Ilaris/Canakinumab
C11: Ilumya/Tildrakizumab-Asmn
C12: Imfinzi/Durvalumab
D1: Inflectra/Infliximab-Dyyb
D2: Ixifi/Infliximab-Qbtx
D3: Kadcyla/Ado-Trastuzumab Emtansine
D4: Kevzara/Sarilumab
D5: Keytruda/Pembrolizumab
D6: Lemtrada/Alemtuzumab
D7: Mvasi/Bevacizumab-Awwb
D8: Gamifant/Emapalumab-Lzsg
D9: Skyrizi/Risankizumab-Rzaa
D10: Libtayo/Cemiplimab-Rwlc
D11: Ocrevus/Ocrelizumab
D12: Ogivri/Trastuzumab-Dkst
E1: Trazimera/Trastuzumab-Qyyp
E2: Praluent/Alirocumab
E3: Praluent/Alirocumab
E4: Praxbind/Idarucizumab
E5: Takhzyro/Lanadelumab
E6: Prostascint/Capromab Pendetide
E7: Prostascint/Capromab Pendetide
E8: Raptiva/Efalizumab
E9: Raxibacumab/Raxibacumab
E10: Remicade/Infliximab
E11: Renflexis/Infliximab-Abda
E12: Reopro/Abciximab
F1: Repatha/Evolocumab
F2: Repatha/Evolocumab
F3: Rituxan/Rituximab
F4: Siliq/Brodalumab
F5: Simponi/Golimumab
F6: Simponi Aria/Golimumab

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F7: Soliris/Eculizumab
F8: Stelara/Ustekinumab
F9: Stelara/Ustekinumab
F10: Synagis/Palivizumab
F11: Taltz/Ixekizumab
F12: Ultomiris/Ravulizumab-Cwvz
G1: Tremfya/Guselkumab
G2: Trogarzo/Ibalizumab-Uiyk
G3: Tysabri/Natalizumab
G4: Unituxin/Dinutuximab
G5: Vectibix/Panitumumab
G6: Xgeva/Denosumab
G7: Xgeva/Denosumab
G8: Cosentyx/Secukinumab
G9: Darzalex/Daratumumab
G10: Gazyva/Obinutuzumab
G11: Humira/Adalimumab
G12: Lartruvo/Olaratumab
H1: Lucentis/Ranibizumab
H2: Opdivo/Nivolumab
H3: Portrazza/Necitumumab
H4: Poteligeo/Mogamulizumab-Kpkc
H5: Simulect/Basiliximab
H6: Sylvant/Siltuximab
H7: Xolair/Omalizumab
H8: Yervoy/Ipilimumab
H9: Zenapax/Daclizumab
H10: Nulojix/Belatacept
H11: Zinbryta/Daclizumab
H12: Zinplava/Bezlotoxumab

FAQs

Q: Why do I have to resuspend the buffers before use?
A: The plate provides high-concentration buffer stocks (5x) in order to enable a variety of measurements for the customer. Due to the high stock concentration, some components may precipitate over time. In order to avoid inaccuracy during measurements, resuspend the 5x buffer stock solutions by pipetting up and down. After proper resuspension, there are no negative effects from any precipitates.

Q: How many samples can be analyzed with one plate?
A: Depending on the applied analysis method, the plate can serve for many experiments. The plate contains 230 µl of 5x stock solutions, so theoretically 1.15 ml of 1x buffers can be prepared.

Q: Is it possible to purchase individual buffers?
A: Yes, individual buffers can be purchased. Please contact info@jenabioscience.com.