

**FORMOScreen®**

Antibody Formulation Screen

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

**For general laboratory use.****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-Aoee
- 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: Ajoyv/Fremanezumab-Vfrm

- B2: Blincyto/Blinatumomab
- B3: Campath/Alemtuzumab
- B4: Cimzia/Certolizumab Pegol
- B5: Evenity/Romosozumab-Aqqg
- B6: Cinqair/Reslizumab
- B7: Cosentyx/Secukinumab
- B8: Crysvida/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-Szss
- 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-Qypp
- 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



## FORMOscreen®

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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](mailto:info@jenabioscience.com).