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## Product Information

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### MALDI Targets, Frames and Adapters

except AnchorChip, BigAnchorChip and Prespotted AnchorChip (PAC) targets

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#### Product description

Bruker offers a wide range of target with different surfaces (ground or polished steel), suitable for different applications and different types of ion sources (microSCOUT or scoutMTP).


MALDI targets, frames and adapters are for research use only. They are not for use in diagnostic procedures.

#### Cleaning Procedure for MALDI targets


Whereas disposable Prespotted AnchorChip (PAC) targets (#227463 and #231968) do not require a washing / cleaning procedure prior to sample preparation, reusable targets require appropriate cleaning for optimal performance. For washing and cleaning of steel AnchorChip Targets, please follow the procedure described in the AnchorChip manual.

We recommend the following washing procedure prior to each preparation:

1. Wipe off the used sample/matrix mixture with a suitable solvent (e.g. acetone for HCCA) .

: Acetone is highly flammable and irritant (R: 11-36-66-67; S: 9-16-26).


2. 15 min sonication with MeOH / 10 % acetic acid 1:1 (v/v).

: Methanol is highly flammable and toxic (R: 11-23/24/25-39/23/24/25; S: 7-16-36/37-45), 10% AcOH is irritant (R: 36/38; S: 26).

3. Rinse with MeOH.
4. Rinse with demineralized H<sub>2</sub>O and blow off the residual liquid with a high pressure air gun.
5. If you want to store washed targets, we recommend repeating steps 3 and 4 prior to usage.

To quickly achieve good vacuum for **transponder targets** (only for those which need no frame):

1. Wipe off the used sample/matrix mixture with a suitable solvent (e.g. acetone for HCCA).
2. 15 min. sonication with MeOH / 10 % acetic acid 1:1 (v/v).
3. Incubate the target in alcohol (isopropanol, ethanol or methanol) for a few seconds to replace the residual water behind the transponder.

: *Isopropanol is highly flammable and irritant (R: 11-36-67; S: 7-16-24/25-26), ethanol is highly flammable (R:11; S:7-16), methanol is highly flammable and toxic (R: 11-23/24/25-39/23/24/25; S: 7-16-36/37-45).*

4. Rinse with MeOH.

Alternative: Cleaning procedure to preclude memory effects e.g. for MALDI Biotyper applications (only for MSP targets)


If the targets are used for MALDI Biotyper applications, two cleaning protocols have to be observed to preclude any memory effects:

(a) Harsh cleaning protocol using 80% aqueous trifluoroacetic acid (TFA):

1. Transfer the MSP target in a crystallizing dish (8 x 4 cm) and overlay the surface of the target with 70% aqueous ethanol.

: *70% ethanol is flammable (R: 10; S: 16).*

2. Incubate for 5 min at room temperature.
3. Remove the target and rinse it intensively under flowing tap water.
4. Wipe the target (Kimwipe) intensively with 70% aqueous ethanol.
5. Rinse the target with tap water and wipe it with a Kimwipe.
6. Cover the target with a layer of 80% aqueous TFA (100 µl, fume hood!) and wipe intensively all target positions with a Kimwipe (wear chemical-protective gloves).


: *80% TFA is corrosive (R: 20-35-52/53; S: (1/2)-9-26-27-28-45-61).*

7. Rinse the target with deionized water and wipe it dry with a Kimwipe.
8. Let the target completely dry for at least 15 min at room temperature.


The target is ready for MALDI Biotyper applications

(b) Smooth cleaning protocol using 4M aqueous guanidine hydrochloride (GdnHCl):

1. Transfer the MSP target in a crystallizing dish (8 x 4 cm) and overlay the surface of the target with 70% aqueous ethanol.

: *70% ethanol is flammable (R: 10; S: 16).*

2. Incubate for 5 min at room temperature.
3. Remove the target and rinse it intensively under flowing tap water.
4. Wipe the target (Kimwipe) intensively with 70% aqueous ethanol.
5. Rinse the target with tap water and wipe it with a Kimwipe.
6. Overlay the target with 4M aqueous GdnHCl and incubate for 10 min at room temperature.

: *4M aqueous GdnHCl solution is harmful (R: 22-36-37-38; S: 2-22).*

7. Rinse the target with plenty of tap water and wipe it with a Kimwipe.
8. Wipe intensively (Kimwipe) all target positions with 4M aqueous GdnHCl (wear chemical-protective gloves).
9. Rinse the target with plenty of tap water and wipe it intensively with a Kimwipe.
10. Repeat steps 8 and 9 twice.
11. Rinse the target with deionized water and wipe it dry with a Kimwipe.
12. Let the target completely dry for at least 15 min at room temperature.

The target is ready for MALDI Biotyper applications.

## **Cleaning Procedure for Target Frames and Adapters**

Do not put the target frame or adapter into any washing buffer because it dries very slowly. Poor vacuum would be the result! If necessary clean the target by wiping it with alcohol.

## **Spread of the sample over several target positions**

All targets without AnchorChip technology may show in some cases that the sample spreads over larger areas of the target surface, especially with increased organic solvent concentration. A rough surface or residual moisture after target cleaning (specially when using ground steel targets) support this effect. Different batches may show different strengths of this effect and are no cause for any complaints.

The spread of the sample can be reduced by minimizing the organic part in the solvent (typically <30%). If the sample requires higher organic solvent concentrations you may put an adequate amount of water at the target position before adding the analyte solution. A drying of the target at 60°C in the drying closet for several hours may be useful as well.

If you should not achieve satisfying result even when following the above mentioned advises we recommend the use of targets with AnchorChip technology e.g. BigAnchor targets (MTP: # 254454 or MSP: #254460 or # 255080). BigAnchorChip result in a sample spread over a defined surface of approx. 2 mm diameter even if a partially organic solvent is used (please see the BigAnchorChip product information for further details).

## **Remarks**

Sporadically, targets may show minor scratches. These cosmetic scratches have no influence on the performance of the target.



## Ordering Information

Product	Part No.
Targets for microSCOUT source:	
MSP 96 target polished steel	224989
MSP 96 target ground steel	224990
Targets and frame for scoutMTP source:	
MTP 384 target polished steel T F	209520
MTP 384 target ground steel T F	209519
MTP target frame III	74115
MTP 384 massive target T	26755
Adapters:	
MTP MSP adapter	226413
MSP NALDI adapter	249320
MTP NALDI adapter	251271
MTP Slide-Adapter II	235380
MTP TLC adapter	255595
MTP Cip adapter	211019

## Support

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