



Blisters – Liquid reagent storage on lab-on-a-chip devices

The storage of liquid reagents in blister pouches is a convenient way to include all necessary assay components on-chip and also to use these pouches for liquid movement by applying pressure in a defined manner.

All blisters are available either as stand-alone parts filled with dye or defined custom-reagents or mounted on-chip ready to use.

Blister test chips

The blister test chips are intended to evaluate liquid storage in blister pouches on-chip. These chips can be obtained with and without blisters. Blisters are mounted on these chips with double sided adhesive tape that comes with the blister test chips.

Standard blisters are filled with dyed water and are available in different volumes.

Blister test chip fluidic 0289 – Flow evaluation: Being equipped with two blisters that can be operated individually, the blister test chip 0289 allows to evaluate the flow rate of the blister emptying procedure and to compare two different channel settings. Blisters with volumes being available off-the-shelf that can be operated with this chip are 50 μl , 100 μl , 150 μl , 200 μl , 250 μl and 350 μl .

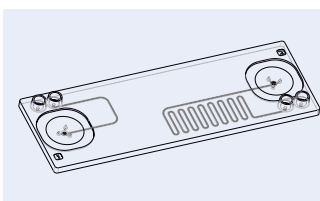


Fig. 1: Schematic drawing of blister test chip Fluidic 0289

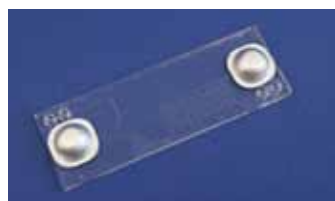


Fig. 2: Blister test chip Fluidic 0289

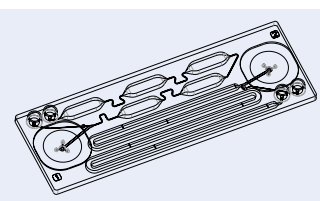


Fig. 3: Schematic drawing of blister test chip Fluidic 0522



Fig. 4: Blister test chip Fluidic 0522

Product Code	Description	Blister volume [μl]	Lid thickness [μm]	Surface treatment	Material	Price [€/chip]		
						1+	10+	100+
23-1908-0289-02	Blister test chip – Fluidic 0289	2 x 100	140	-	Topas	84.20	42.50	28.90
23-1909-0289-02	Blister test chip – Fluidic 0289	2 x 150	140	-	Topas	84.20	42.50	28.90
23-1910-0289-02	Blister test chip – Fluidic 0289	2 x 200	140	-	Topas	84.20	42.50	28.90
23-1911-0289-02	Blister test chip – Fluidic 0289	2 x 250	140	-	Topas	84.20	42.50	28.90
23-1912-0289-02	Blister test chip – Fluidic 0289	2 x 100	140	hydrophilized	Topas	87.20	45.50	31.90
23-1913-0289-02	Blister test chip – Fluidic 0289	2 x 150	140	hydrophilized	Topas	87.20	45.50	31.90
23-1914-0289-02	Blister test chip – Fluidic 0289	2 x 200	140	hydrophilized	Topas	87.20	45.50	31.90
23-1915-0289-02	Blister test chip – Fluidic 0289	2 x 250	140	hydrophilized	Topas	87.20	45.50	31.90

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Blister test chip fluidic 0522 – Emptying and volume evaluation: This blister test chip is equipped with two blisters followed by a straight channel or a channel with five cavities in line, allowing for a measurement of 50 μl each.

The chip is pre-equipped with blisters being filled with roughly 220 μl . Blisters of different volumes can be mounted on top. Blisters with volumes being available off-the-shelf that can be operated with this chip are 50 μl , 100 μl , 150 μl , 200 μl , 250 μl and 350 μl .

Product Code	Description	Blister volume [μl]	Volume measurement [μl]	Lid thickness [μm]	Surface treatment	Material	Price [€/chip]		
							1+	10+	100+
23-1900-0522-02	Blister test chip – Fluidic 0522	2 x 100	250	140	-	Topas	84.20	42.50	28.90
23-1901-0522-02	Blister test chip – Fluidic 0522	2 x 150	250	140	-	Topas	84.20	42.50	28.90
23-1902-0522-02	Blister test chip – Fluidic 0522	2 x 200	250	140	-	Topas	84.20	42.50	28.90
23-1903-0522-02	Blister test chip – Fluidic 0522	2 x 250	250	140	-	Topas	84.20	42.50	28.90
23-1904-0522-02	Blister test chip – Fluidic 0522	2 x 100	250	140	hydrophilized	Topas	87.20	45.50	31.90
23-1905-0522-02	Blister test chip – Fluidic 0522	2 x 150	250	140	hydrophilized	Topas	87.20	45.50	31.90
23-1906-0522-02	Blister test chip – Fluidic 0522	2 x 200	250	140	hydrophilized	Topas	87.20	45.50	31.90
23-1907-0522-02	Blister test chip – Fluidic 0522	2 x 250	250	140	hydrophilized	Topas	87.20	45.50	31.90

Blisters

Blisters can be ordered as stand-alone parts being available with volumes ranging from 50 – 500 μl off-the shelf.

The blisters from 50 – 350 μl volume can be operated with blister test chips 0289 and 0522, the 500 μl blister requires different test chips.

For convenience reasons, the blisters come with a ring of double sided adhesive tape to be mounted on the chips. Afterwards, the blisters can be removed for blister replacement.

All blisters can be ordered either with dye or with individually defined liquids, to be provided to *microfluidic ChipShop*. Custom-filling services are charged 100 € extra per blister order.

Product Code	Description	Blister volume [μl]	Price [€/chip]		
			1+	10+	100+
23-1916-0644-24	Blister pouch	50	8.20	5.80	2.95
23-1917-0645-24	Blister pouch	100	8.20	5.80	2.95
23-1918-0646-24	Blister pouch	150	8.20	5.80	2.95
23-1919-0647-24	Blister pouch	200	8.20	5.80	2.95
23-1920-0648-24	Blister pouch	250	8.20	5.80	2.95
23-1921-0649-24	Blister pouch	350	8.20	5.80	2.95
23-1922-0650-24	Blister pouch	500	8.20	5.80	2.95
23-1923-0000-00	Custom reagent filling service	-	100.00	-	-

Blister Driver – ChipGenie® edition BD

For a quick evaluation of the emptying of blister and filling behavior, *microfluidic ChipShop's* blister driver ChipGenie® edition BD is at hand. The chips are inserted in the loader, the instrument positions the blisters correctly and a freely configurable emptying procedure can be performed. Visualization takes place with an integrated camera.



Fig. 5: Blister emptying in ChipGenie® edition BD

Product Code	Description	Price [€]
08-0497-0000-00	ChipGenie® edition BD – Blister Driver instrument	2.685,00