

Supplemental table 1: Direct homogenate testing with the secA LAMP assay. Various homogenisation approaches (i.e., device, lysis matrices, settings) were applied for the grapevine tissue preparations. One gram of grapevine tissue and 2 ml of ELISA buffer were used for all homogenisation approaches, with the exception of FastPrep-1, where only 400 mg plant material and 1 ml buffer were used. The homogenates were 10-fold diluted in water prior to the LAMP analysis. All of the samples were BNP infected (as tested with qPCR) and the estimated amount of BNP DNA in the individual samples is given according to the qPCR Cq. All of the samples were tested in triplicate, and the mean Tpos and Tm are given. For each homogenisation approach, the percentages of true positive and false negative samples were calculated. The Cq values are coloured from red to green, from lowest to highest, respectively.

Homogenisation device	Lysis matrix	Settings	Sample name	Tissue	LAMP		Cq	Cultivar	Number of homogenates tested	Positive (%)	False negative (%)
					Tpos (min)	Tm (°C)					
Bertin Minilys	2.8 mm ceramic beads, silicon dioxide	5000 rpm; 20 sec in 7ml tubes	D468/13 + D764/13	Leaf veins	9.6	85.2	24.8	Unknown + Pinela	4	4 (100%)	0 (0%)
Bertin Minilys	metallic beads (3.175 mm), silicon dioxide	5000 rpm; 20 sec in 7ml tubes	D541/13 + D571/13	Leaf veins	10.1	85.2	27.0	Renski rizling + Modra frankinja			
Bertin Minilys	2.8 mm ceramic beads, silicon dioxide	5000 rpm; 20 sec in 7ml tubes	D776/13 + D767/13	Leaf veins	13.6	85.3	29.4	Chardonnay + Refošk			
Bertin Minilys	2.8 mm ceramic beads, silicon dioxide	5000 rpm; 20 sec in 7ml tubes	D479/13 + D761/13	Leaf veins	24.8	85.3	31.4	Unknown + Modra frankinja			
FastPrep-1	LM A (garnet matrix, 4 mm ceramic sphere)	1900 cy/min; 20 sec	D394/13	Leaf veins	20.0	84.1	26.0	Chardonnay	4	3 (75%)	1 (25%)
FastPrep-1	LM A (garnet matrix, 4 mm ceramic sphere)	1900 cy/min; 20 sec	D395/13	Leaf veins	15.7	84.3	26.3	Modra frankinja			
FastPrep-1	LM A (garnet matrix, 4 mm ceramic sphere)	2300 cy/min; 20 sec	D561/13	Leaf veins	30.0	84.2	30.2	Refošk			
FastPrep-1	LM S (6 metallic beads, 3.175 mm)	2300 cy/min; 20 sec	D561/13	Leaf veins	neg	/	30.2	Refošk			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D551/13	Leaf veins	9.5	85.4	24.4	Unknown	71	65 (92%)	6 (8%)
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D468/13 + D764/13	Leaf veins	10.6	85.5	24.8	Pinela+Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D241/14	Leaf veins	9.6	85.4	25.6	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D538/13	Leaf veins	12.1	85.3	25.9	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D264/14	Leaf veins	9.9	85.3	26.0	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D454/13	Leaf veins	16.4	85.2	26.1	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D235/14	Leaf veins	7.6	85.1	26.4	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D597/13	Leaf veins	11.6	85.2	27.0	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D600/13	Leaf veins	16.1	85.5	27.0	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D541/13 + D571/13	Leaf veins	9.7	85.4	27.0	Renski rizling + Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D248/14	Leaf veins	10.7	85.2	27.4	Šipon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D550/13	Leaf veins	14.7	85.2	28.2	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	204-berries	Berries	12.8	85.2	28.2	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D242/14	Leaf veins	15.6	85.1	28.3	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D234/14	Leaf veins	16.4	85.1	28.3	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D465/13	Leaf veins	14.1	85.2	28.5	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	4/3-veins	Leaf veins	10.9	85.4	29.1	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D456/13	Leaf veins	16.6	85.2	29.2	Modra frankinja, Žametna črnina			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D253/14	Leaf veins	14.9	84.9	29.3	Beli pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D563/13	Leaf veins	neg	/	29.3	Malvazija, Rebula			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D776/13 + D767/13	Leaf veins	12.7	85.4	29.4	Chardonnay + Refošk			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D251/14	Leaf veins	10.9	85.5	29.5	Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D438/13 + D670/13	Leaf veins	11.1	85.6	29.7	Modra frankinja+unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	204/14-veins	Leaf veins	12.0	85.5	30.3	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D478/13	Leaf veins	31.8	85.1	30.4	Rebula, Pinela, Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D474/13	Leaf veins	28.2	85.1	30.6	Modri pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D540/13 + D743/13	Leaf veins	14.5	85.1	30.7	Renski rizling + Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/4-veins	Leaf veins	14.3	85.5	30.9	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D549/13	Leaf veins	14.6	85.1	31.0	Sauvignon, Modra Frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	7/2-pedicels	Berry pedicels	11.7	85.2	31.0	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D765/13	Leaf veins	18.9	85.2	31.3	malvazija			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	2-berry pedicels	Berry pedicels	8.9	85.3	31.3	Šipon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D479/13 + D761/13	Leaf veins	13.5	85.5	31.4	Unknown + Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/1-veins	Leaf veins	18.9	85.6	31.4	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	1-berries	Berries	10.2	85.2	31.5	Renski rizling			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/4-pedicels	Berry pedicels	10.2	85.2	31.5	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/1-pedicels	Berry pedicels	14.5	85.2	31.6	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D255/14	Leaf veins	27.4	85.2	31.6	Modri pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	204-pedicels	Berry pedicels	20.8	85.3	31.7	Acolon			

FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	2-berries	Berries	13.3	85.1	31.7	Šipon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D766/13	Leaf veins	21.6	85.4	31.7	Pinela			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D245/14	Leaf veins	13.8	85.3	31.8	Modri Pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D455/13	Leaf veins	15.8	85.5	31.8	Modra frankinja, Žametna črnina			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	4/2-veins	Leaf veins	11.1	85.5	32.1	Dornfelder			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	1-berry pedicels	Berry pedicels	13.7	85.3	32.1	Renski riezling			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	2-veins	Leaf veins	17.8	85.5	32.3	Šipon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D260/14	Leaf veins	7.8	85.1	32.5	Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D238/14	Leaf veins	18.0	85.3	32.7	Refošk			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D680/13	Leaf veins	19.5	85.5	32.8	White cultivar			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/1-berries	Berries	24.6	85.2	32.8	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D390/13	Leaf veins	30.8	86.2	32.9	Unknown			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D473/13	Leaf veins	neg	/	32.9	Modri pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	7/2-berries	Berries	17.8	85.0	32.9	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D752/13	Leaf veins	neg	/	33.0	Modri pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D782/13 + D769/13	Leaf veins	13.3	85.1	33.5	Modra frankinja + Refošk			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	7/2-tendrils	Tendrils	25.3	85.3	33.6	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	7/2-veins	Leaf veins	17.8	85.5	33.6	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D662/13	Leaf veins	21.0	85.0	33.9	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D664/13	Leaf veins	20.6	85.4	34.3	Modri Pinot			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	204-tendrils	Tendrils	14.4	85.4	34.4	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	4/3-tendrils	Tendrils	neg	/	34.5	Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D621/13	Leaf veins	16.0	85.5	34.7	Muškat otonel			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	3-berry pedicels	Berry pedicels	11.5	85.3	34.7	Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	1-veins	Leaf veins	19.3	85.6	34.8	Renski riezling			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D754/13	Leaf veins	neg	/	35.2	Modri pinot, Sauvignon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/4-berries	Berries	14.9	85.1	35.2	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	3-veins	Leaf veins	21.5	85.5	35.4	Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	2-tendrils	Tendrils	16.7	85.3	35.6	Šipon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	3-berries	Berries	27.8	85.3	35.7	Chardonnay			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	9/4-tendrils	Tendrils	23.8	85.4	36.0	Acolon			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 20 sec	D298/13	Leaf veins	neg	/	36.8	Rebula			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 40 sec	D540/13 + D743/13	Leaf veins	16.5	85.0	28.7	Renski rizling + Modra frankinja			
FastPrep-24	Stainless steel beads, quartz	5 m/s; 40 sec	D438/13 + D670/13	Leaf veins	12.2	85.4	29.1	Modra frankinja + unknown	3	3 (100%)	0 (0%)
FastPrep-24	Stainless steel beads, quartz	5 m/s; 40 sec	D782/13 + D769/13	Leaf veins	15.8	85.0	30.1	Modra frankinja + Refošk			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D436/13	Leaf veins	12.5	84.7	24.7	Žametna črnina			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D630/13	Leaf veins	7.8	85.5	25.0	Unknown			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D601/13	Leaf veins	15.6	85.3	26.1	Unknown			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D393/13	Leaf veins	17.2	84.6	26.3	Beli pinot			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D705/13	Leaf veins	12.0	85.7	26.4	Malvazija			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D387/13	Leaf veins	9.6	85.4	26.6	Modra frankinja			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D470/13	Leaf veins	13.5	85.4	27.1	Unknown			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D537/13	Leaf veins	23.0	85.6	27.1	Unknown	16	11 (69%)	5 (31%)
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D407/13	Leaf veins	19.9	85.2	27.3	Modra frankinja			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D768/13	Leaf veins	16.6	85.5	27.9	Refošk			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D427/13	Leaf veins	15.5	84.9	28.9	Chardonnay			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D405/13	Leaf veins	neg	/	29.8	Modra frankinja			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D339/13	Leaf veins	neg	/	30.6	Modra frankinja			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D731/13	Leaf veins	neg	/	30.8	Refošk			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D429/13	Leaf veins	neg	/	31.3	Modra frankinja			
UTTD	Stainless steel beads, quartz	6000 rpm; 60 sec	D451/13	Leaf veins	neg	/	31.6	Modra frankinja			