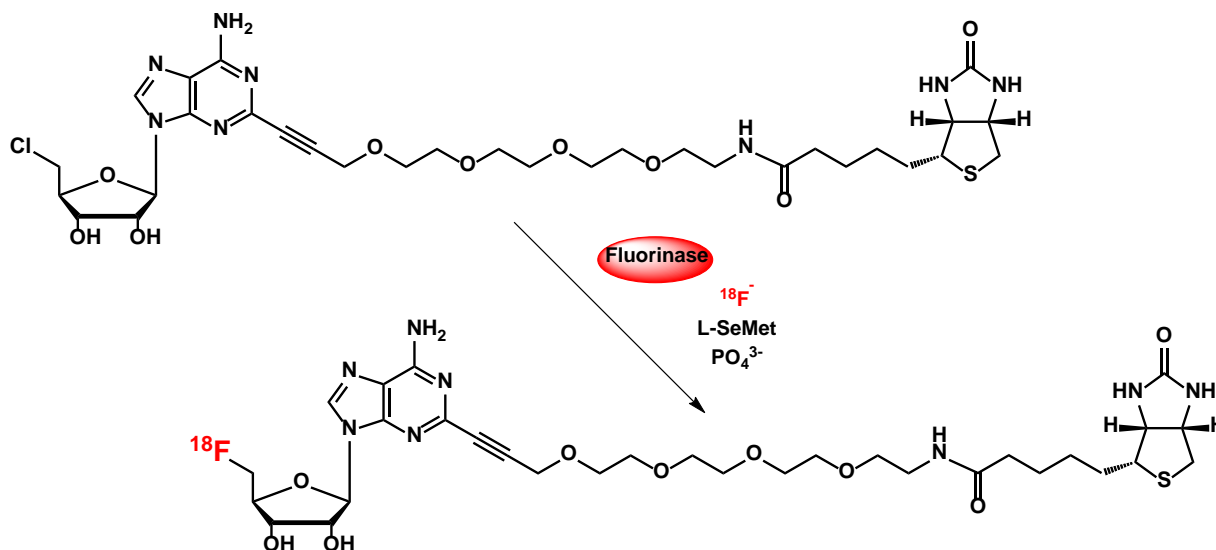


22-08-2017

ZSJPL006



Compound	Amount	Final conc.
Fluorinase enzyme	5 mg in 60 $\mu\text{L}$ water ( $\text{PO}_4^{3-}$ buffer, 50 mM), 174 nmol	
L-SeMet (2mM in water)	40 $\mu\text{L}$ , 80 nmol	
<b>Biotin-CIDA</b>	0.4 mg in 50 $\mu\text{L}$ , 540 nmol	
$^{18}\text{F}$ in O18 Water	100 $\mu\text{L}$	694 MBq @ 13:45

12 mins bombardment on T4, with rinse(x 2), final activity 146 approx. 6.3 GBq

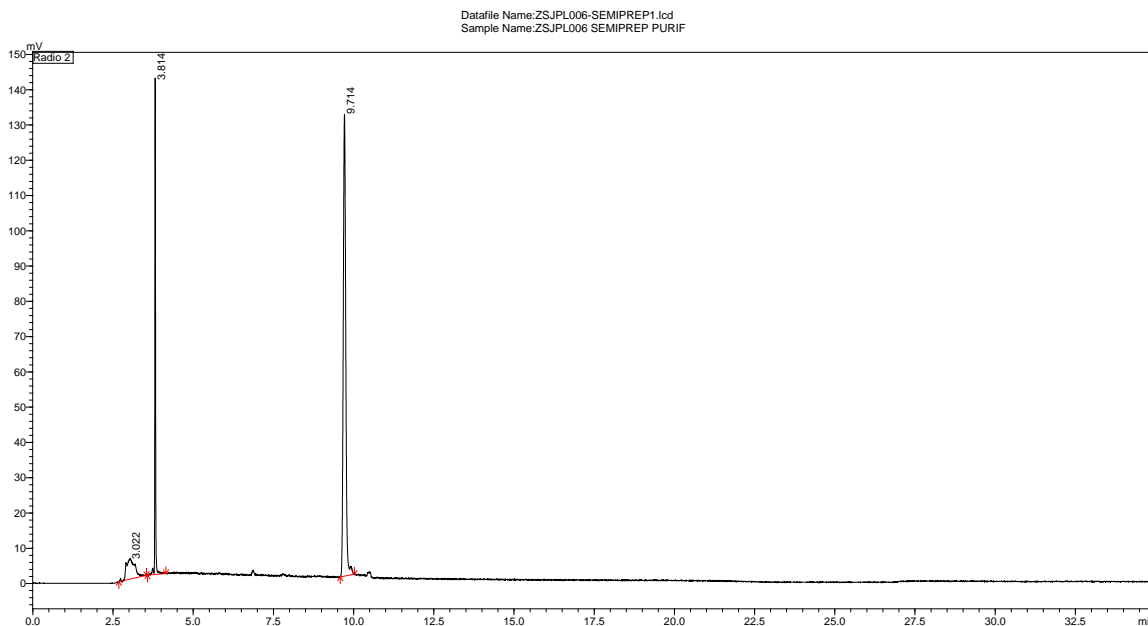
13:46 start incubation 37 °C (694 MBq)

14:16 reaction mixture was boiled at 95°C for 5 min (591 Mbq @ 14:16). After that 400  $\mu\text{L}$  of water were added and the eppendorf was spun at 13500 rpm for 5 min. 521 MBq @ 14:37. Approx. 600  $\mu\text{L}$  of the supernatant (407 MBq @ 14:36) were injected in the HPLC (4.9 MBq residual in the syringe @ 13:40). Approx. 104 MBq @ 13:37 left in the Eppendorf.

Collected 70.7 MBq @ 14:53, approx. 17.6% of injected activity (Rt 9.66 min)

**HPLC solvents, water, Ethanol and ascorbate solution were degassed either with Helium or sonicating under vacuum.**

semiprep crude radio signal



Peak#	Ret. Time	Area	Height	Mark	Conc.	Area%
1	3.022	104490	5739	M	10.062	10.062
2	3.814	221524	136729	M	21.332	21.332
3	9.714	712445	130603	M	68.606	68.606
Total		1038459	273072		100.000	100.000

Peak is collected in 45 mL of 10 mg/mL ascorbate in water solution (70.7 MBq @ 14:53)

The content was loaded on the OASIS HLB light cartridge

62.1 MBq trapped in the cartridge @ 14:56

1.6 MBq residue in the collection vial @ 14:56

1.9 MBq in the filtered solution @ 14:57

Cartridge was washed with 10 mL of a 10 mg/mL ascorbate in water solution

61.9 Mbq trapped in the cartridge @14:57

0.5 MBq in the wash solution @14:57

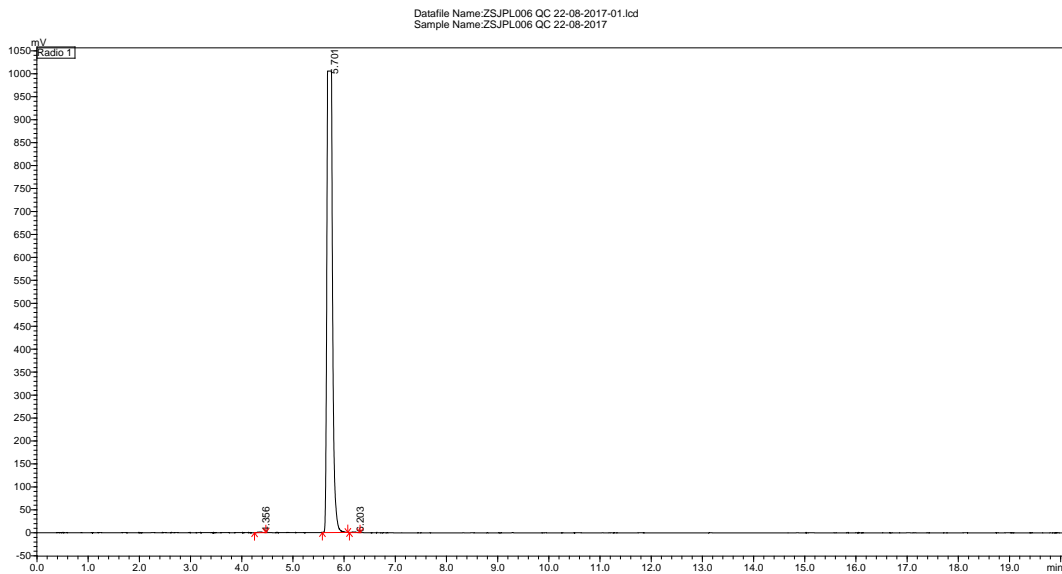
Activity was eluted from the cartridge with 0.4 mL of Ethanol

53.6 MBq eluted @15:03

6 MBq left in the cartridge @15:03

100  $\mu$ L of Ethanol solution were diluted with a 10 mg/mL ascorbate in water solution to 500  $\mu$ L, 100  $\mu$ L of this solution was injected in the analytical HPLC.

Radio HPLC diluted 1:5 with ascorbate solution

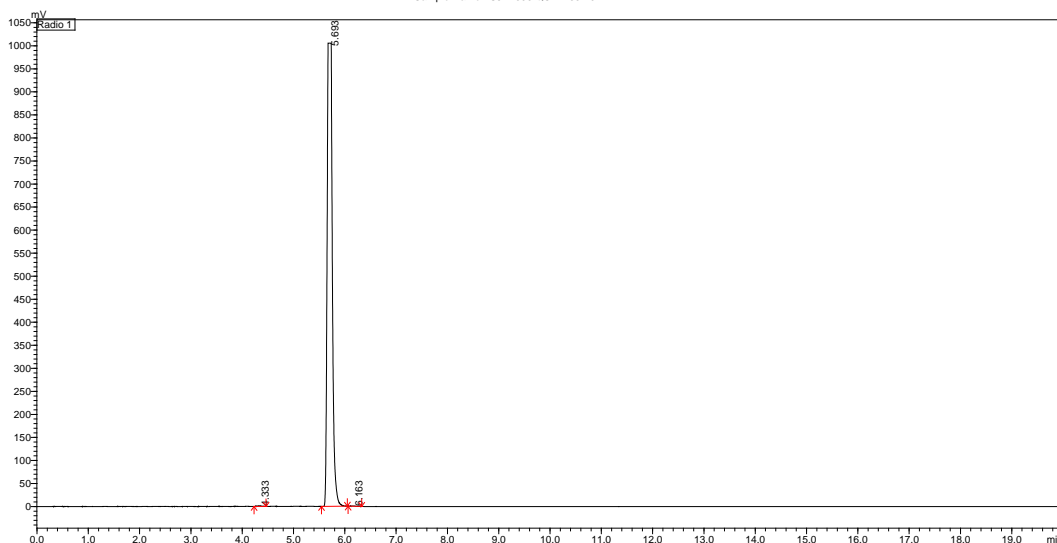


Peak#	Ret. Time	Area	Height	Mark	Conc.	Area%
1	4.356	7602	1406	M	0.099	0.099
2	5.701	7664400	1005201	M	99.814	99.814
3	6.203	6714	1228	M	0.087	0.087
Total		7678716	1007834		100.000	100.000

100  $\mu$ L of Ethanol solution were diluted with water to 500  $\mu$ L, 100  $\mu$ L of this solution was injected in the analytical HPLC.

Radio HPLC Diluted 1:5 with water

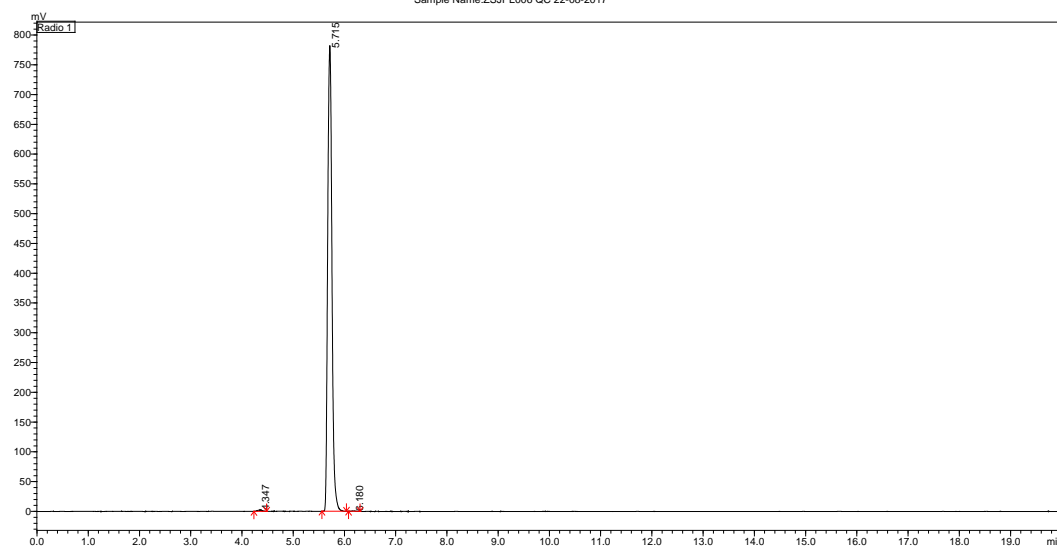
Datfile Name: ZSJPL006 QC 22-08-2017-02.lcd  
Sample Name: ZSJPL006 QC 22-08-2017

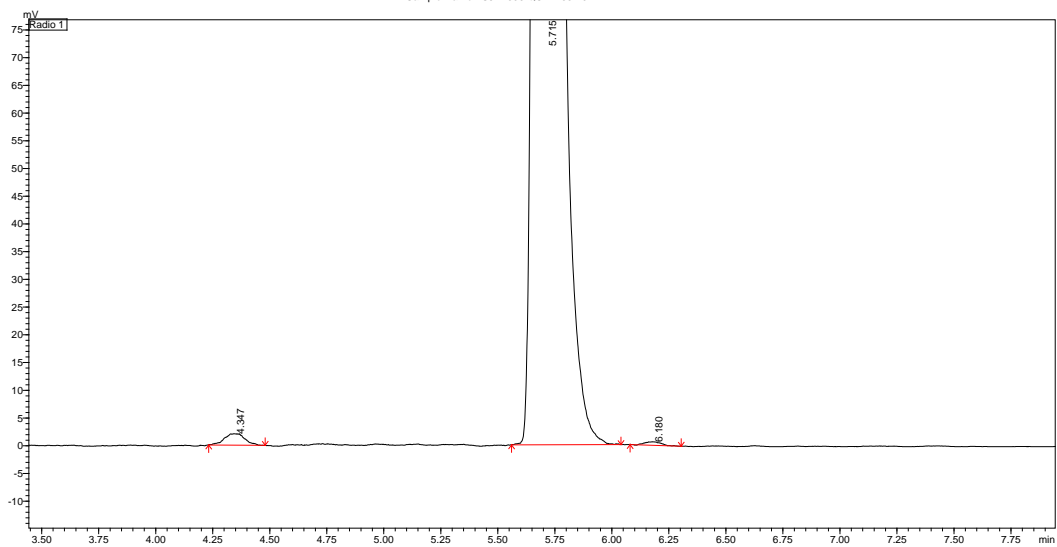


Peak#	Ret. Time	Area	Height	Mark	Conc.	Area%
1	4.333	5447	1089	M	0.077	0.077
2	5.693	7020511	1005369	M	99.861	99.861
3	6.163	4334	844	M	0.062	0.062
Total		7030292	1007302		100.000	100.000

The solution obtained diluting with ascorbate was reinjected in the HPLC after 2 hours (vial left open and in contact with air)

Datfile Name: ZSJPL006 QC 22-08-2017-04.lcd  
Sample Name: ZSJPL006 QC 22-08-2017





Peak#	Ret. Time	Area	Height	Mark	Conc.	Area%
1	4.347	12995	2043	M	0.287	0.287
2	5.715	4514740	780724	M	99.647	99.647
3	6.180	3002	617	M	0.066	0.066
Total		4530737	783384		100.000	100.000