	scFv's epitope
	D1 domain
FGFR4	MRLLLALLGVLLSVPGPPVLSLEASEEVELEPCLAPSLEQQEQELTVALGQPVRL
FGFR3	MGAPACALALCVAVAIVAGASSESLGTEQRVVGRAAEVPGPEP-GQQEQLVFGSGDAVEL
FGFR1	MWSWKCLLFWAVLVTATLCTARPSPTLPEQAQPWGAPVEVESFLVHPGDLLQL
FGFR2	MVSWGRFICLVVVTMATLSLARPSFSLVEDTTLEPEEPPTKYQISQPEVYVAAPGESLEV
	scFv's · epitope · · * · · * · · * · · * · · * · · * · · * · · *
FGFR4	CCGRAERGGHWYKEGSRLAPAGRVRGWRGRLEIASFLPEDAGRYLCLA-RGSMIVL
FGFR3	SCPPPGGGPMGPTVWVKDGTGLVPSERVLVGPORLOVLNASHEDSGAYSCRO-RLTORVL
FGFR1	RCRLRDDVOSINWLRDGVOLAESNRTRITGEEVEVODSVPADSGLYACVTSSPSGSDT
FGFR2	RCLLKDAAVISWTKDGVHLGPNNRTVLIGEYLQIKGATPRDSGLYACTASRTVDSET
	* * .:* * * . : . *:* * * D2 domain
FGFR4	QNLTLITGDSLTSSNDDEDPKSHRDPSNRHSYPQQAPYWTHPQRMEKKLHAVPAGNT
FGFR3	CHFSVRVTDAPSSGDDEDGEDEAEDTGVDTGAPYWTRPERMDKKLLAVPAANT
FGFR1	TYFSVNVSDALPSSEDDDDDDDSSSEEKETDNTKPNPVAPYWTSPEKMEKKLHAVPAAKT
FGFR2	WYFMVNVTDAISSGDDEDDTDGAEDFVSENSNNKRAPYWTNTEKMEKRLHAVPAANT
	: : . *: .*.:*::
FGFR4	VKFRCPAAGNPTPTIRWLKDGQAFHGENRIGGIRLRHQHWSLVMESVVPSDRGTYTCLVE
FGFR3	VRFRCPAAGNPTPSISWLKNGREFRGEHRIGGIKLRHQQWSLVMESVVPSDRGNYTCVVE
FGFR1	VKFKCPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRYATWSIIMDSVVPSDKGNYTCIVE
FGFR2	VKFRCPAGGNPMPTMRWLKNGKEFKQEHRIGGYKVRNQHWSLIMESVVPSDKGNYTCVVE
	..**:.*.* *:: ***:*. *. ::**** .:* **::*:*****.*.*.***
	D2 domain D3 domain
FGFR4	NAVGSIRYNYLLDVLERSPHRPILQAGLPANTTAVVGSDVELLCKVYSDAQPHIQWLKHI
FGFR3	NKFGSIRQTYTLDVLERSPHRPILQAGLPANQTAVLGSDVEFHCKVYSDAQPHIQWLKHV
FGFR1	NEYGSINHTYQLDVVERSPHRPILQAGLPANKTVALGSNVEFMCKVYSDPQPHIQWLKHI
FGFR2	NEYGSINHTYHLDVVERSPHRPILQAGLPANASTVVGGDVEFVCKVYSDAQPHIQWIKHV
	* ***. * *****************************
FGFR4	VINGSSFGADGFPYVQVLKTADINSSEVEVLYLRNVSAEDAGEYTCLAGNSIGLSYQS
FGFR3	EVNGSKVGPDGTPYVTVLKTAGANTTDKELEVLSLHNVTFEDAGEYTCLAGNSIGFSHHS
FGFR1	EVNGSKIGPDNLPYVQILKTAGVNTTDKEMEVLHLRNVSFEDAGEYTCLAGNSIGLSHHS
FGFR2	EKNGSKYGPDGLPYLKVLKAAGVNTTDKEIEVLYIRNVTFEDAGEYTCLAGNSIGISFHS
	. *.*. **: :**:*. *:: *: :.**: ********
	D3 domain Transmembrane Region
FGFR4	AWLTVLPEEDPTWTAAAPEARYTD <mark>IILYASGSLALAVLLLLAGLY</mark> RGQALHGRHP-RPPA
FGFR3	AWLVVLPAEEELVEADEAGSVYAGILSYGVGFFLFILVVAAVTLCRLRSPPKKGLGSP
FGFR1	AWLTVLEALEER-PAVMTSPLYLEIIIYCTGAFLISCMVGSVIVYKMKSGTKKSDFHSQM
FGFR2	AWLTVLPAPGRE-KEITASPDYLEIAIYCIGVFLIACMVVTVILCRMKNTTKKPDFSSQP
	***.** * * * * : : :

Figure S1. Multiple sequence alignment of the extracellular regions of FGF receptors (isoforms IIIc). Sequences of FGFR1 (NP_056934.2), FGFR2 (NP_000132.3), FGFR3 (NP_000133.1) and FGFR4 (NP_002002.3) were aligned with MUSCLE server (<u>https://www.ebi.ac.uk/Tools/msa/muscle/</u>). The boundaries of domains, transmembrane regions, and scFv's binding site were labeled on green, yellow and red, respectively.

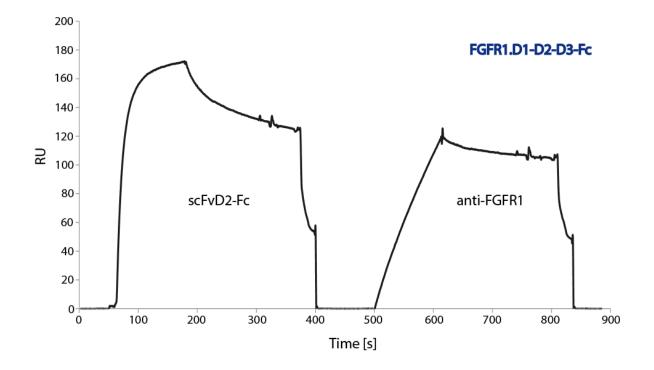


Figure S2. Specificity of scFv proteins towards FGFR1. Extracellular region of FGFR1 (FGFR1.D1-D2-D3-Fc) was immobilized on CM5 sensors and incubated with anti-FGFR1 antibody and scFvD2-Fc.

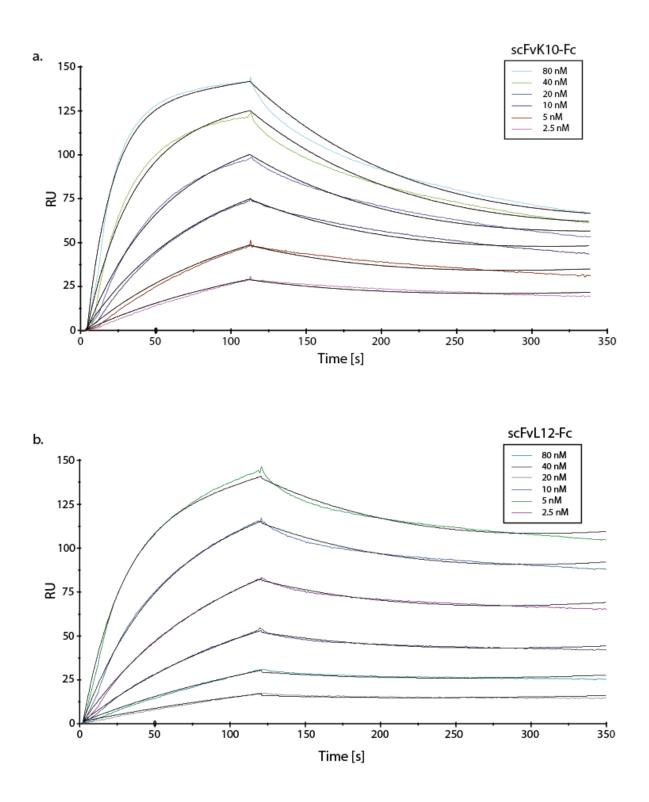


Figure S3. SPR sensograms with fitting curves (black lines) according to 1:1 Langmuir binding model with drifting baseline. Graphs were prepared using BIAevaluation 4.1 software.