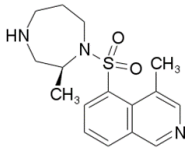
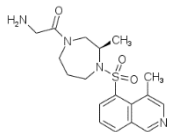
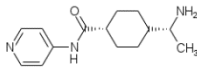
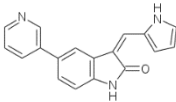
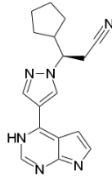
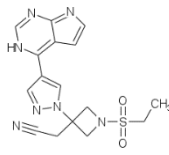
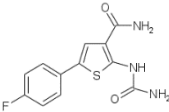
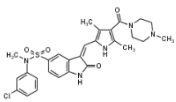


Table S1 List of hits selected from the primary screen

SBP Compound ID	Library (Vendor)	Molecule Name	SLC1A5 PM Fraction *
<i>SB193</i>	EMD Biosciences	(S)-H-1152 (hydrochloride), Rho Kinase Inhibitor	-119.6
<i>SB708</i>	Cayman Chemicals	(S)-Glycyl-H-1152 (hydrochloride), Rho Kinase Inhibitor IV	-114.3
SB195	EMD Biosciences	Rho Kinase Inhibitor V	-109.6
<i>SB321</i>	SelleckChem	Y-27632 2HCl, ROCK1 inhibitor	-76.7
<i>SB686</i>	EMD Biosciences	JAK3 Inhibitor VI	-74.2
SB661	AnalytiCon Discovery		-71.7
<i>SB261</i>	SelleckChem	Ruxolitinib, JAK inhibitor	-69.9
SB435	SelleckChem	NU7441(KU-57788)	-67.6
SBI442	SelleckChem	MLN8054, Aurora Kinase inhibitor	-63.1
SB727	EMD Biosciences	AlsterPauollone, CDK1/cyclin B Inhibitor	-62.0
SB615	AnalytiCon Discovery		-61.2
SB678	AnalytiCon Discovery		-53.6
SB403	Prestwick	Hexachlorophene	-53.4
SB296	AnalytiCon Discovery		-52.7
SB892	Prestwick Chemical	Monensin sodium salt	-52.5
<i>SB156</i>	EMD Biosciences	IMD 0354, IKK-2 Inhibitor V	-52.2
<i>SB448</i>	SelleckChem	Baricitinib (LY3009104, INCB028050), JAK inhibitor	-51.3
SB440	SelleckChem	Brivanib (BMS-540215)	-48.4
SB443	SelleckChem	Brivanib alaninate (BMS-582664)	-48.3
SB655	AnalytiCon Discovery		-48.0
SB208	EMD Biosciences	Wee1 Inhibitor	-46.4
SB822	AnalytiCon Discovery		-45.3
SB418	SelleckChem	TAK-733, MEK inhibitor	-45.3
<i>SB762</i>	SelleckChem	TPCA-1, IKK-2 Inhibitor IV	-44.7
SB628	AnalytiCon Discovery		-44.4
SB135	EMD Biosciences	Bisindolylmaleimide III, Hydrochloride	-43.8
<i>SB688</i>	SelleckChem	SU11274, Met Kinase Inhibitor	-43.5
SB304	AnalytiCon Discovery		-41.0
SB392	SelleckChem	Neratinib (HKI-272)	-41.0
SB887	AnalytiCon Discovery		-40.7
SB040	AnalytiCon Discovery		-40.6
SB617	AnalytiCon Discovery		-40.6

* See Fig 2b for definition

Table S2. Chemical structures of hits selected for validation

SBP Compound ID	Compound name	Structure	Reference
SB193	(S)-H-1152		(1)
SB708	(S)-Glycyl-H-1152		(2)
SB321	Y-27632		(3)
SB686	JAK3 Inhibitor VI		(4)
SB261	Ruxolitinib		(5)
SB448	Baricitinib		(6)
SB762	TPCA-1		(7,8)
SB688	SU11274		(9)

References Cited:

1. Sasaki Y, Suzuki M, Hidaka H. The novel and specific Rho-kinase inhibitor (S)-(+)-2-methyl-1-[(4-methyl-5-isoquinoline)sulfonyl]-homopiperazine as a probing molecule for Rho-kinase-involved pathway. *Pharmacol Ther* **2002**;93(2-3):225-32 doi 10.1016/s0163-7258(02)00191-2.
2. Tamura M, Nakao H, Yoshizaki H, Shiratsuchi M, Shigyo H, Yamada H, *et al.* Development of specific Rho-kinase inhibitors and their clinical application. *Biochim Biophys Acta* **2005**;1754(1-2):245-52 doi 10.1016/j.bbapap.2005.06.015.
3. Uehata M, Ishizaki T, Satoh H, Ono T, Kawahara T, Morishita T, *et al.* Calcium sensitization of smooth muscle mediated by a Rho-associated protein kinase in hypertension. *Nature* **1997**;389(6654):990-4 doi 10.1038/40187.
4. Adams C, Aldous DJ, Amendola S, Bamborough P, Bright C, Crowe S, *et al.* Mapping the kinase domain of Janus Kinase 3. *Bioorg Med Chem Lett* **2003**;13(18):3105-10 doi 10.1016/s0960-894x(03)00657-7.
5. Verstovsek S. Therapeutic potential of JAK2 inhibitors. *Hematology Am Soc Hematol Educ Program* **2009**:636-42 doi 10.1182/asheducation-2009.1.636.
6. Fridman JS, Scherle PA, Collins R, Burn TC, Li Y, Li J, *et al.* Selective inhibition of JAK1 and JAK2 is efficacious in rodent models of arthritis: preclinical characterization of INCB028050. *J Immunol* **2010**;184(9):5298-307 doi 10.4049/jimmunol.0902819.
7. Podolin PL, Callahan JF, Bolognese BJ, Li YH, Carlson K, Davis TG, *et al.* Attenuation of murine collagen-induced arthritis by a novel, potent, selective small molecule inhibitor of I κ B Kinase 2, TPCA-1 (2-[(aminocarbonyl)amino]-5-(4-fluorophenyl)-3-thiophenecarboxamide), occurs via reduction of proinflammatory cytokines and antigen-induced T cell Proliferation. *J Pharmacol Exp Ther* **2005**;312(1):373-81 doi 10.1124/jpet.104.074484.
8. Stevenson CS, Capper EA, Roshak AK, Marquez B, Grace K, Gerwick WH, *et al.* Scytonemin--a marine natural product inhibitor of kinases key in hyperproliferative inflammatory diseases. *Inflamm Res* **2002**;51(2):112-4 doi 10.1007/BF02684014.
9. Wang X, Le P, Liang C, Chan J, Kiewlich D, Miller T, *et al.* Potent and selective inhibitors of the Met [hepatocyte growth factor/scatter factor (HGF/SF) receptor] tyrosine kinase block HGF/SF-induced tumor cell growth and invasion. *Mol Cancer Ther* **2003**;2(11):1085-92.