

厚生労働科学研究費補助金(化学物質リスク研究事業)

総括研究報告書 図表

表面プラズモン共鳴高速分析によるデータの高速取得技術及びHTPSに特化するための試験研究  
(主任研究者:ピアコア株式会社委託業務)

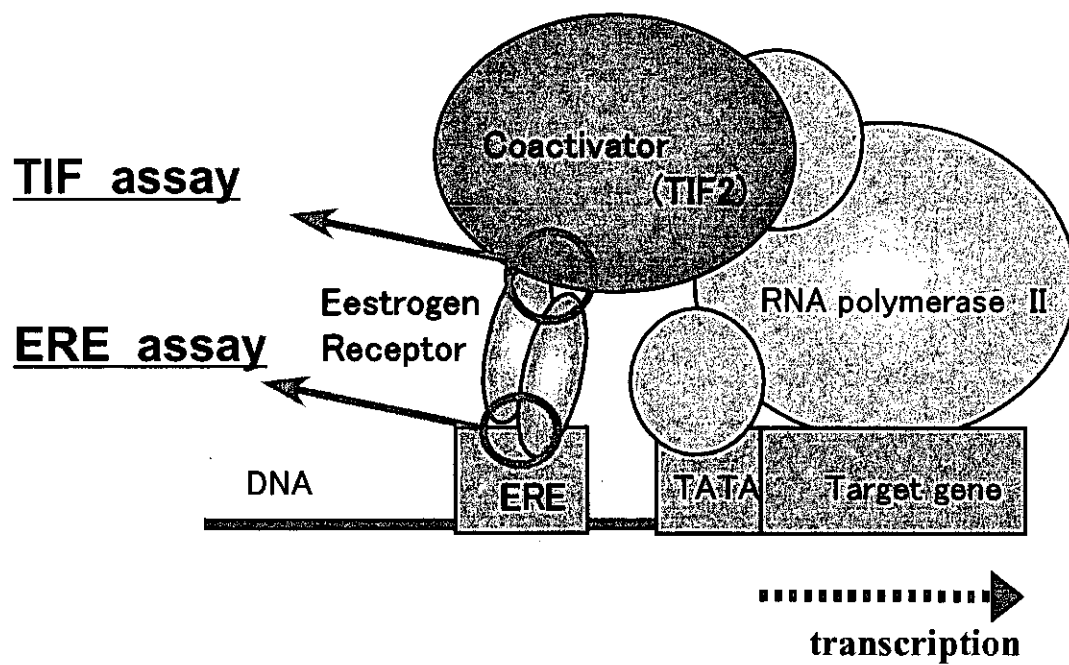


図1 表面プラズモン共鳴スクリーニング法の概要

エストロゲンレセプターの作用機構と2種類のアッセイ

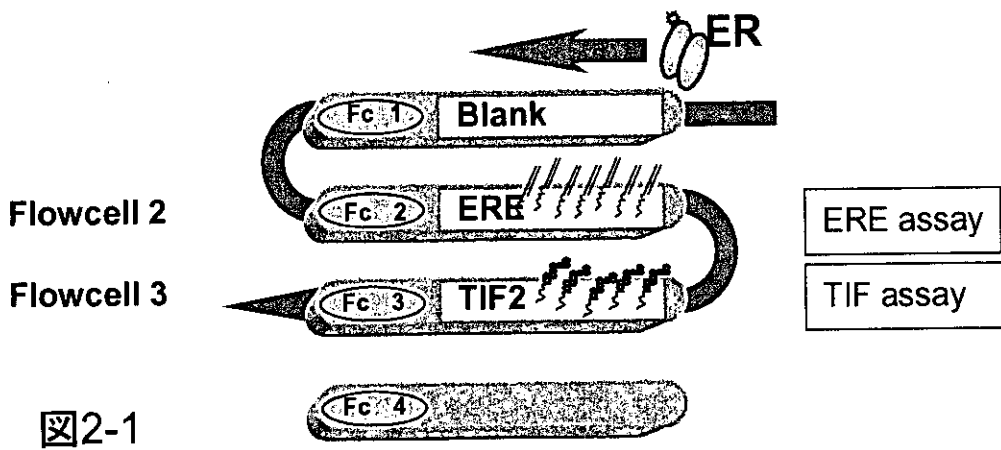


図2-1

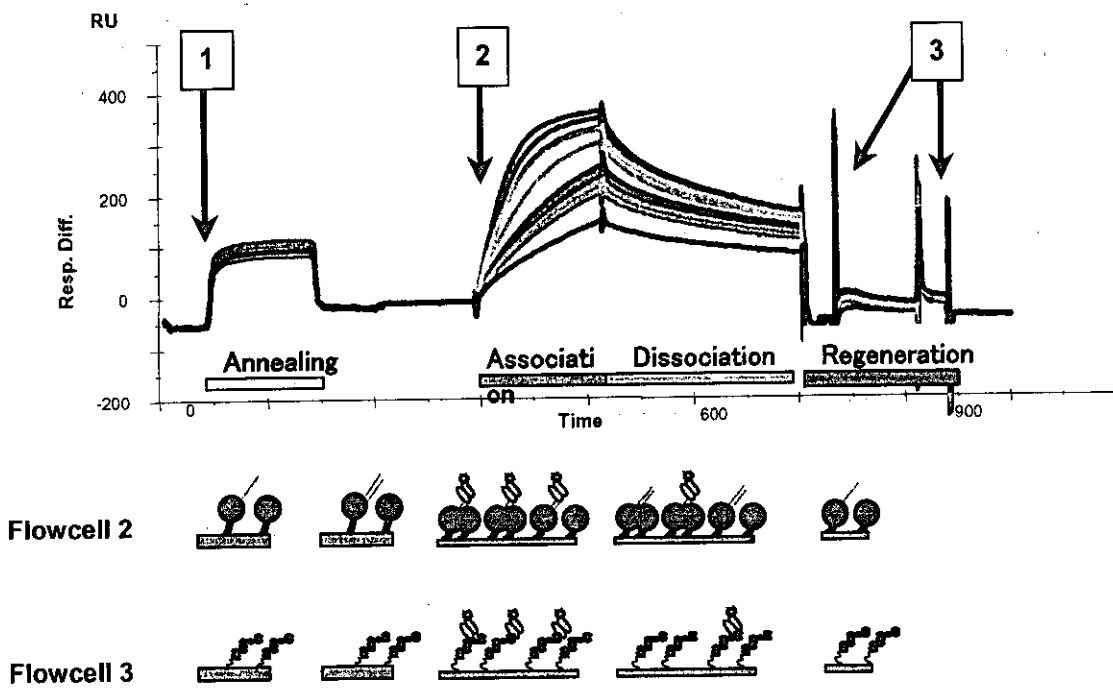


図2-2

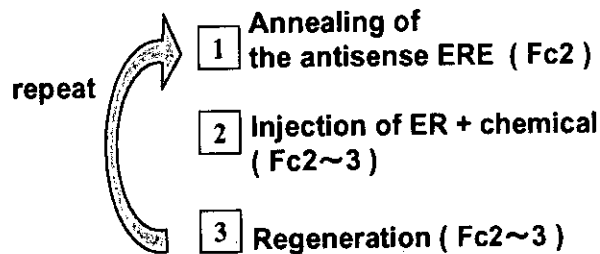
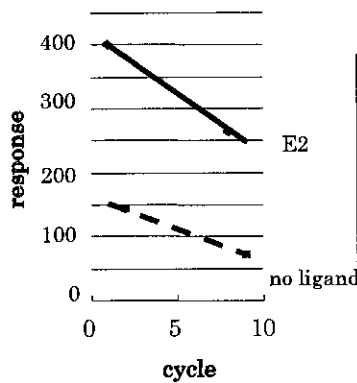
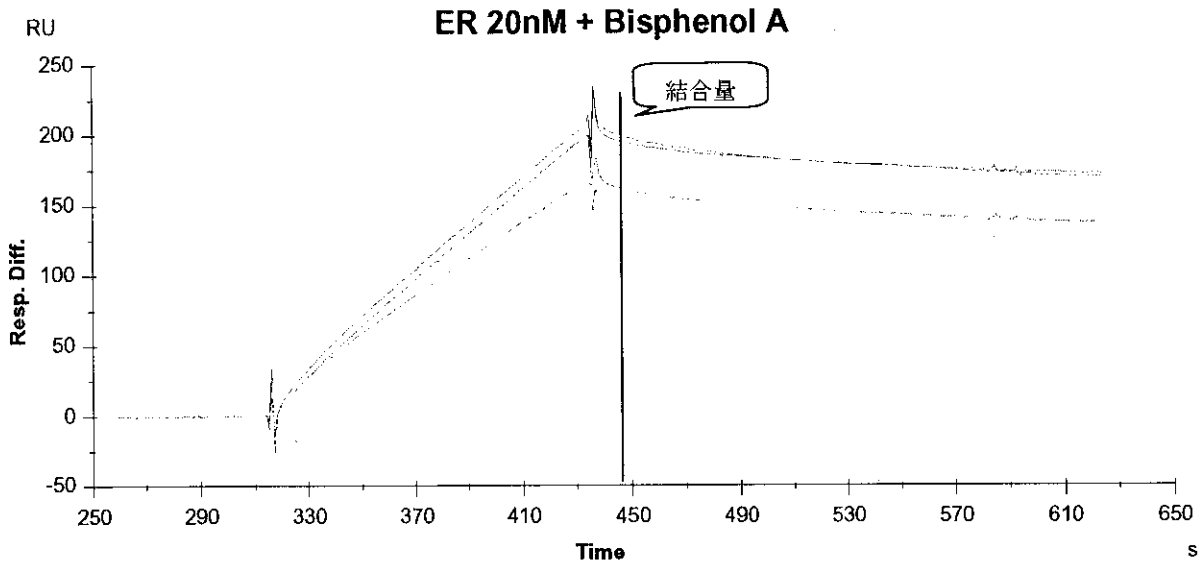
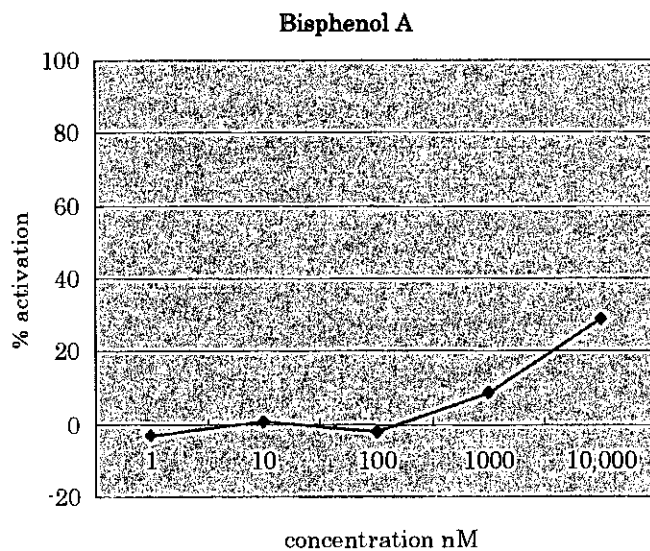


図2 表面プラズモン共鳴センサーのアッセイ  
 図2-1 センサーチップ上でのアッセイの構築  
 図2-2 アッセイの流れとセンサーグラム



bisphenol A		BIA9					
cycle	conc nM	RelRes	E2cal	nolig cal	drug activation	E2 activation	% activation
2	0	141.4	380.75	141.40	0.00	239.36	0.00
9	0	70.8	246.05	70.80	0.00	175.26	0.00
7	1	84.8	284.54	90.97	-6.17	193.57	8.19
6	10	92.1	284.54	90.97	1.13	193.57	0.58
5	100	97.2	303.78	101.05	-3.85	202.73	1.90
4	1000	129	323.03	111.14	17.86	211.89	8.43
3	10,000	185.5	342.27	121.23	64.27	221.04	29.08
1	100	400	400.00	151.48	248.52	248.51	100.00
8	100	265.3	265.30	80.88	184.42	184.41	100.00



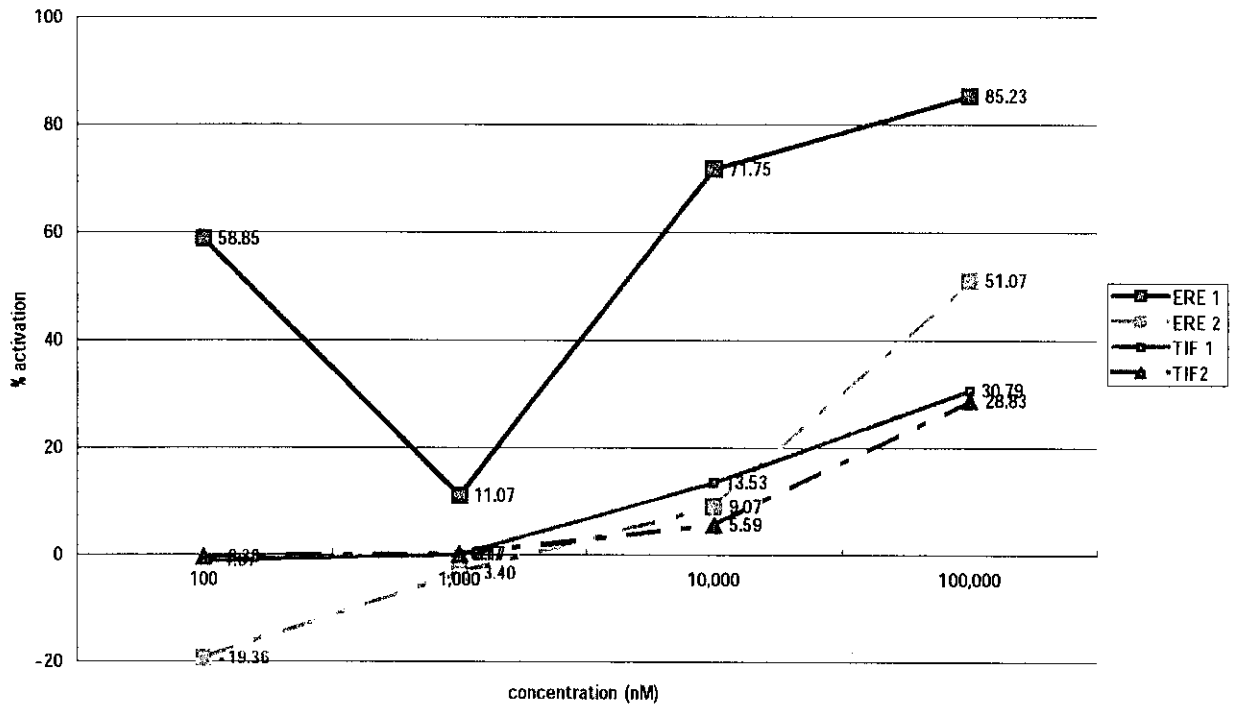
$$\% \text{ activation} = \frac{(\text{化学物質存在下での結合量} - \text{ネガティブコントロールでの結合量})}{(100 \text{ nM E2存在下での結合量} - \text{ネガティブコントロールでの結合量})} \times 100$$

図3 ERアッセイのデータ解析法

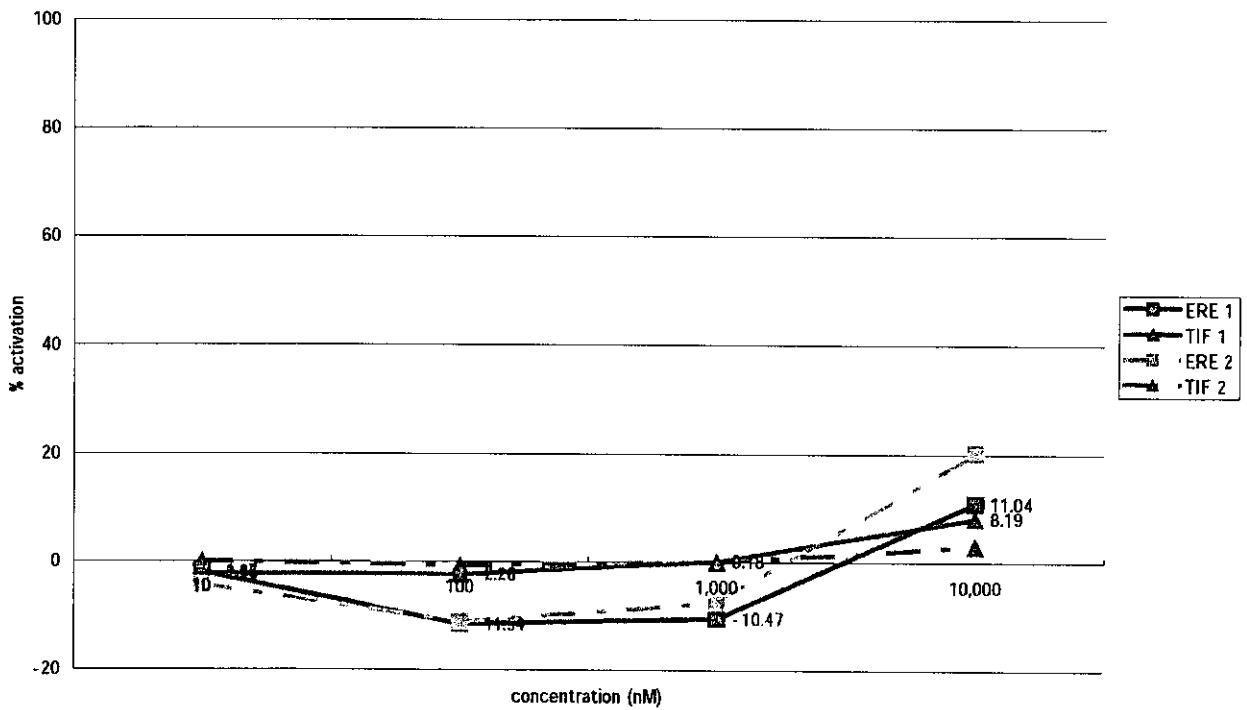
**図4 平成15年度の89化合物のスクリーニング結果**

EREアッセイとTIFアッセイの2回の測定結果を示す

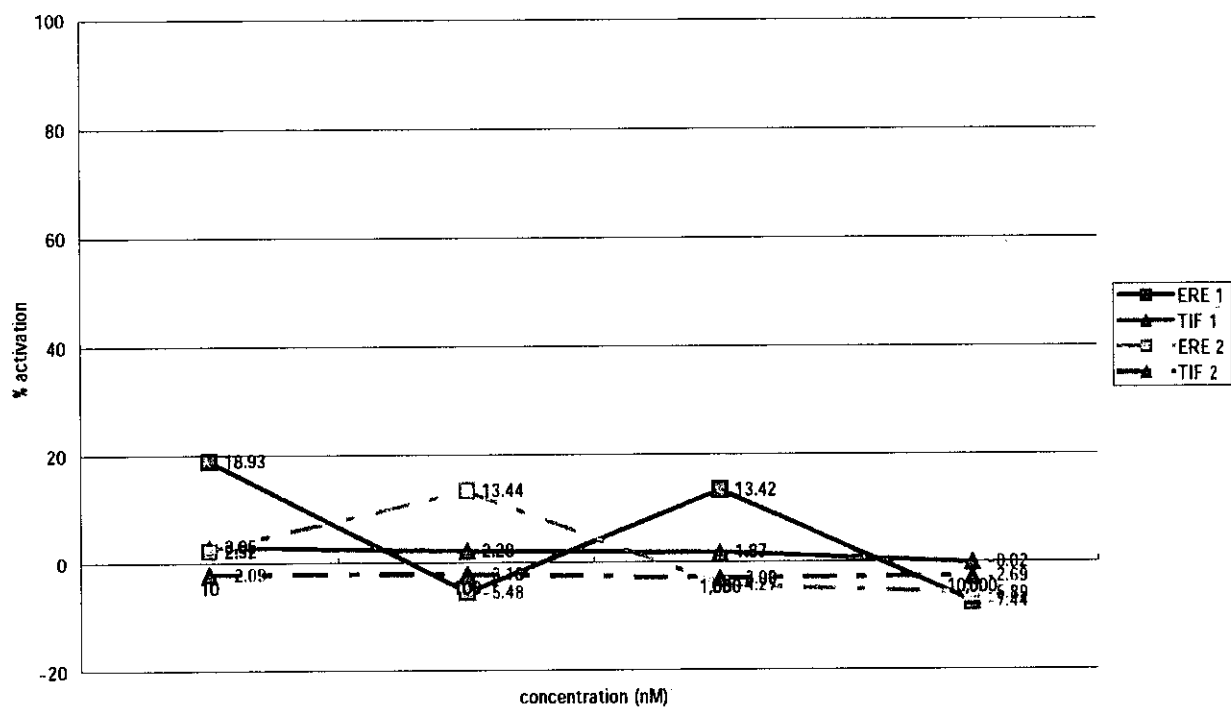
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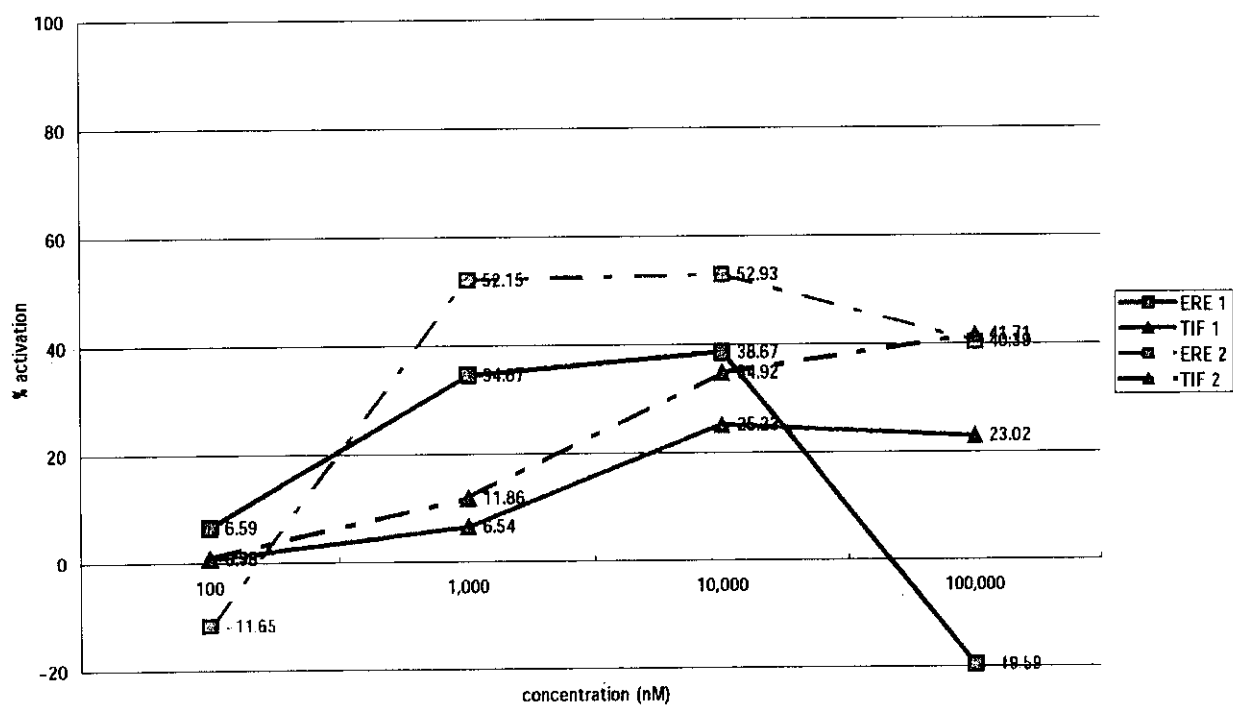
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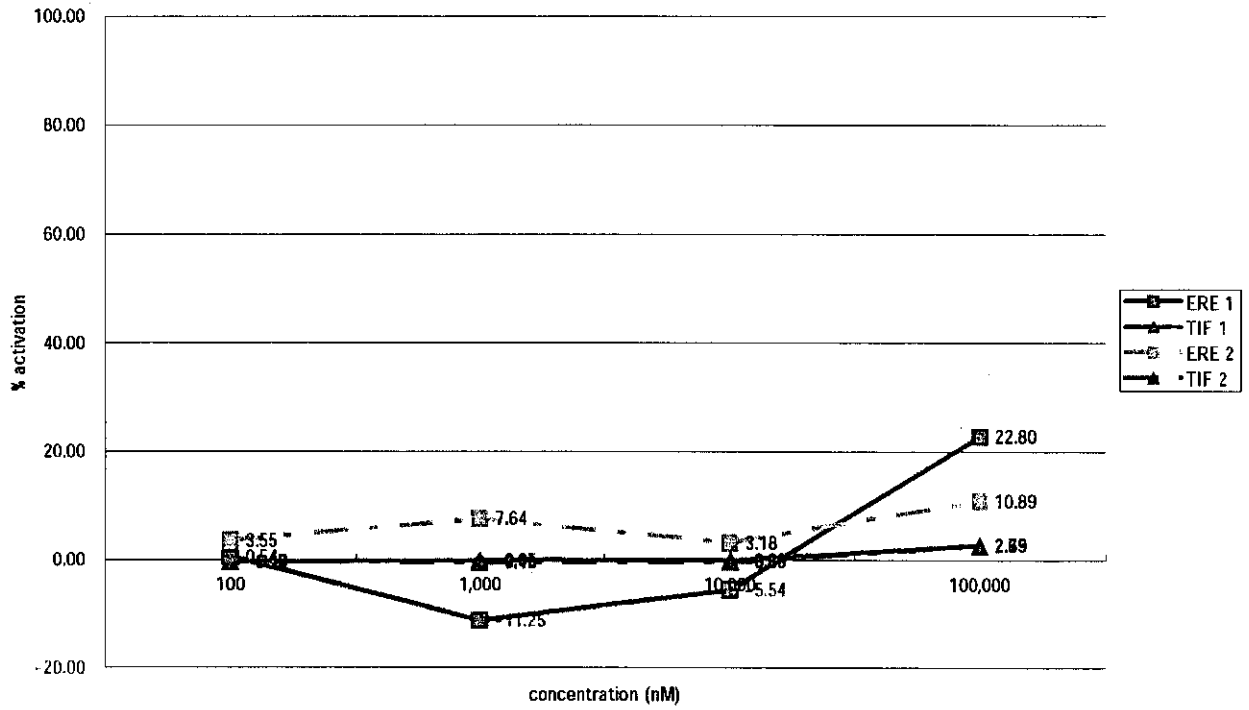
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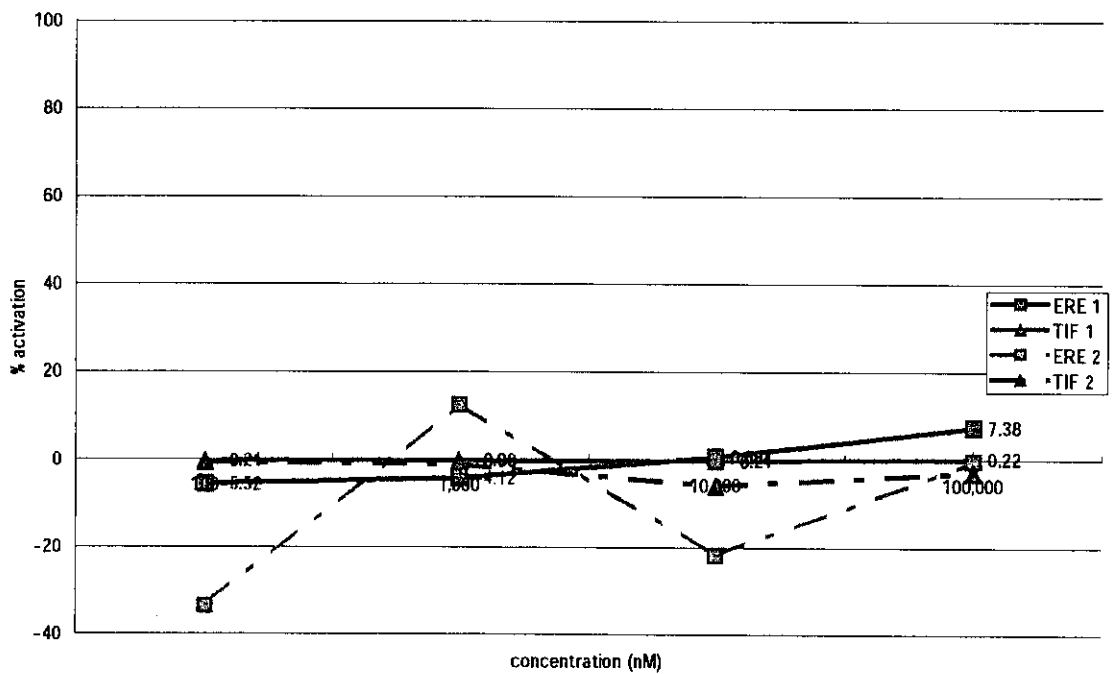
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ER559

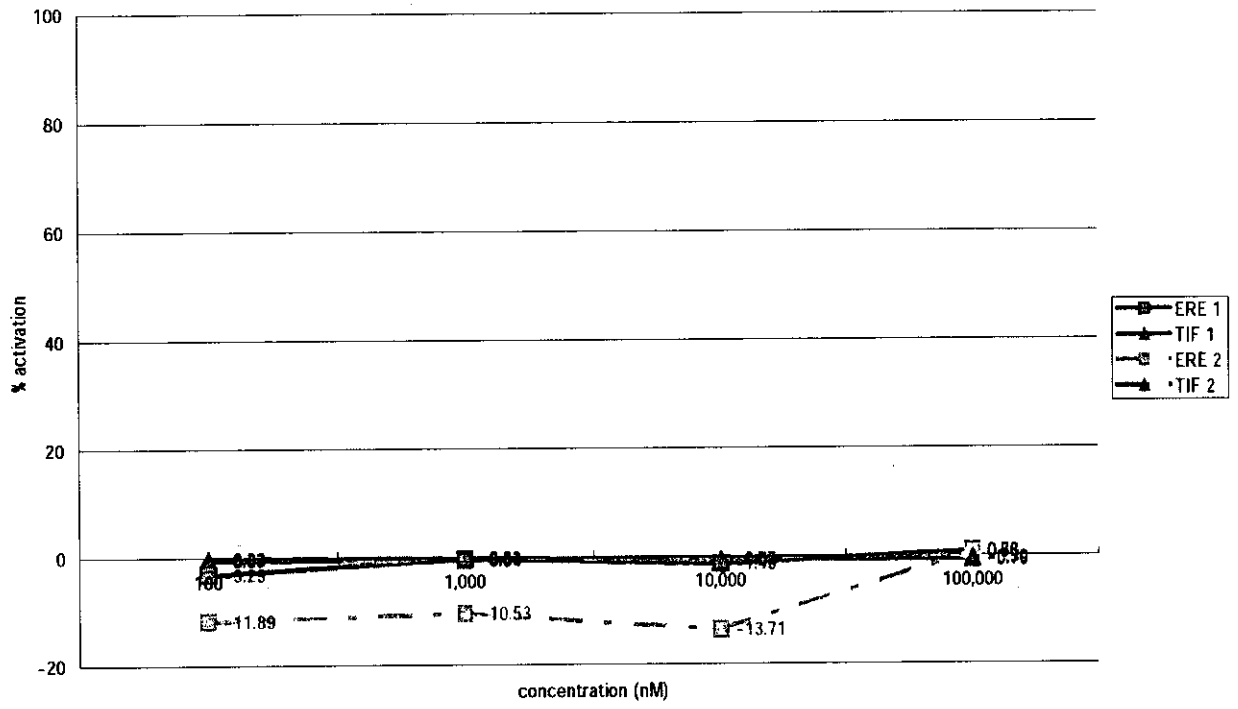


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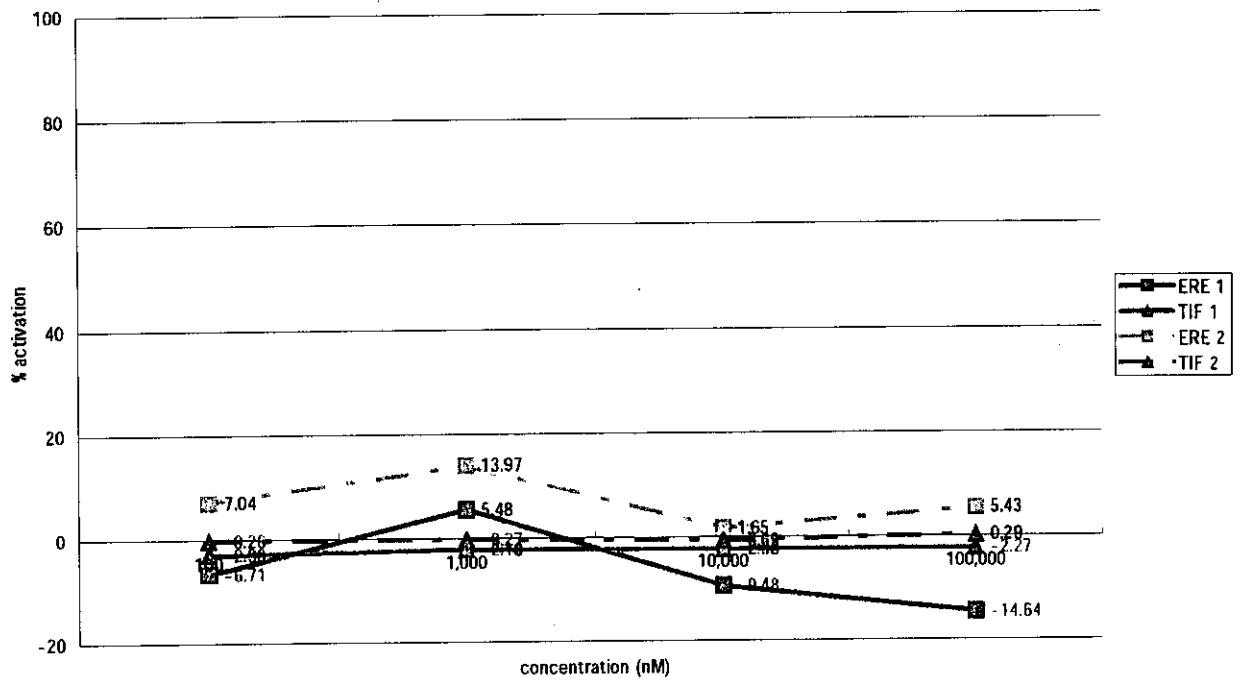




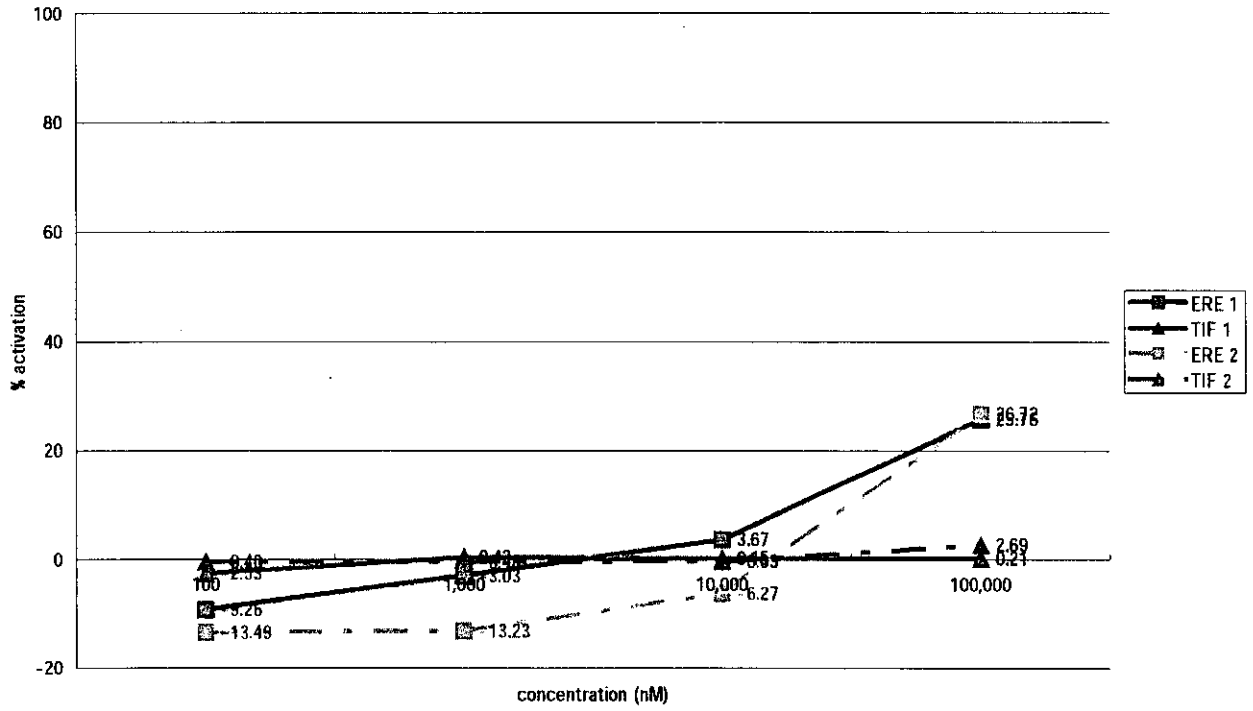
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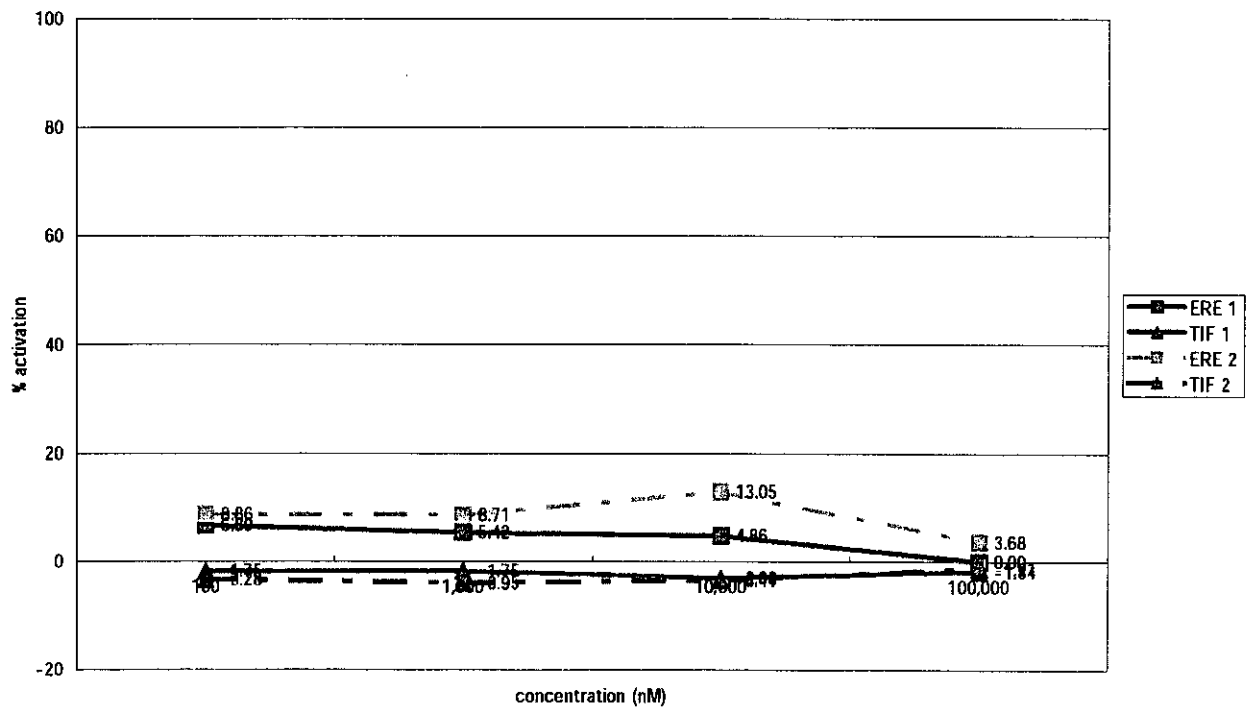
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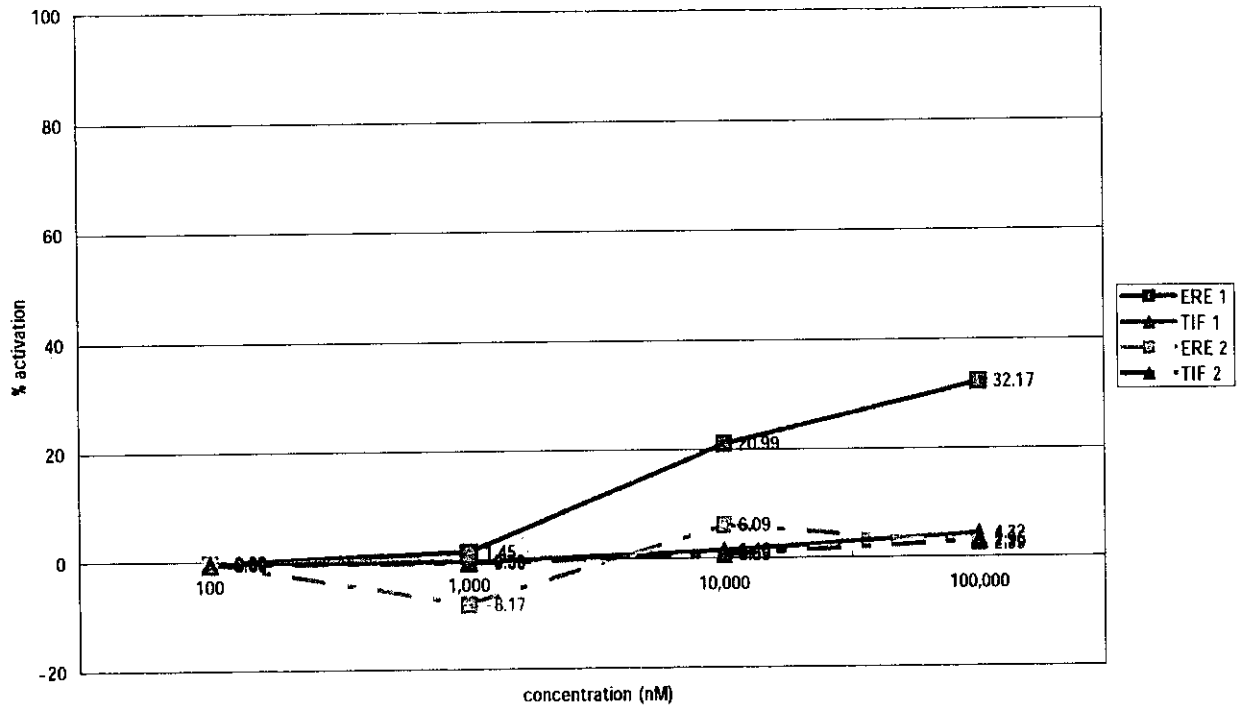
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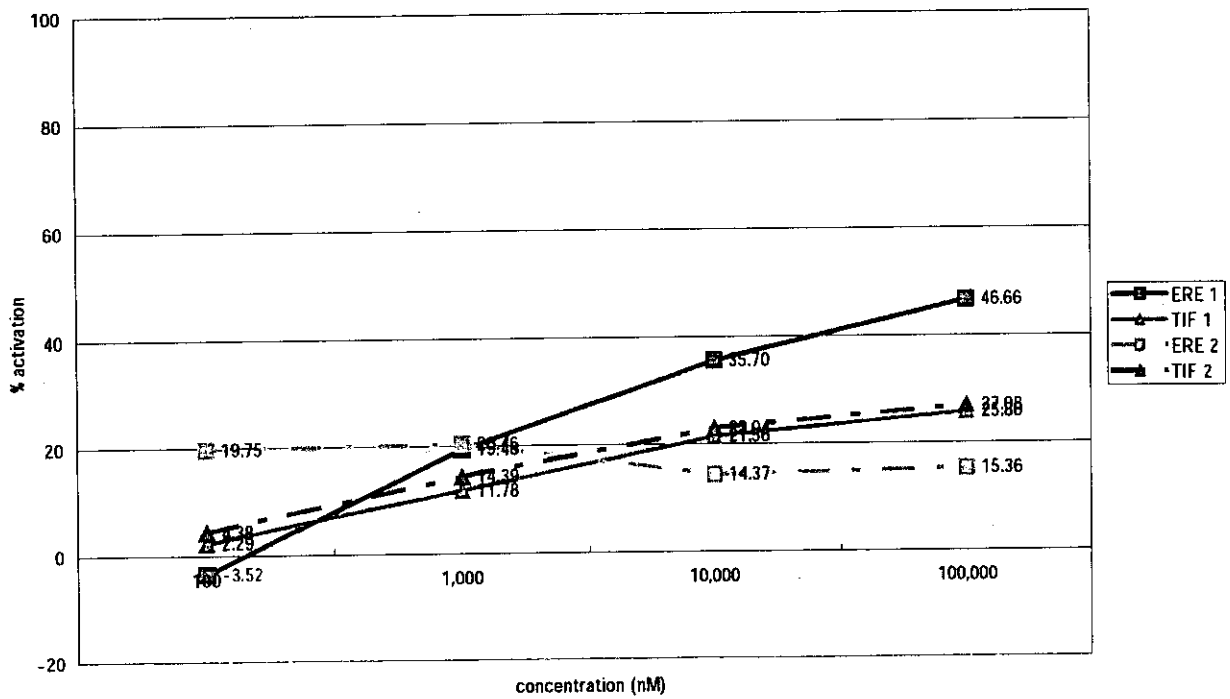
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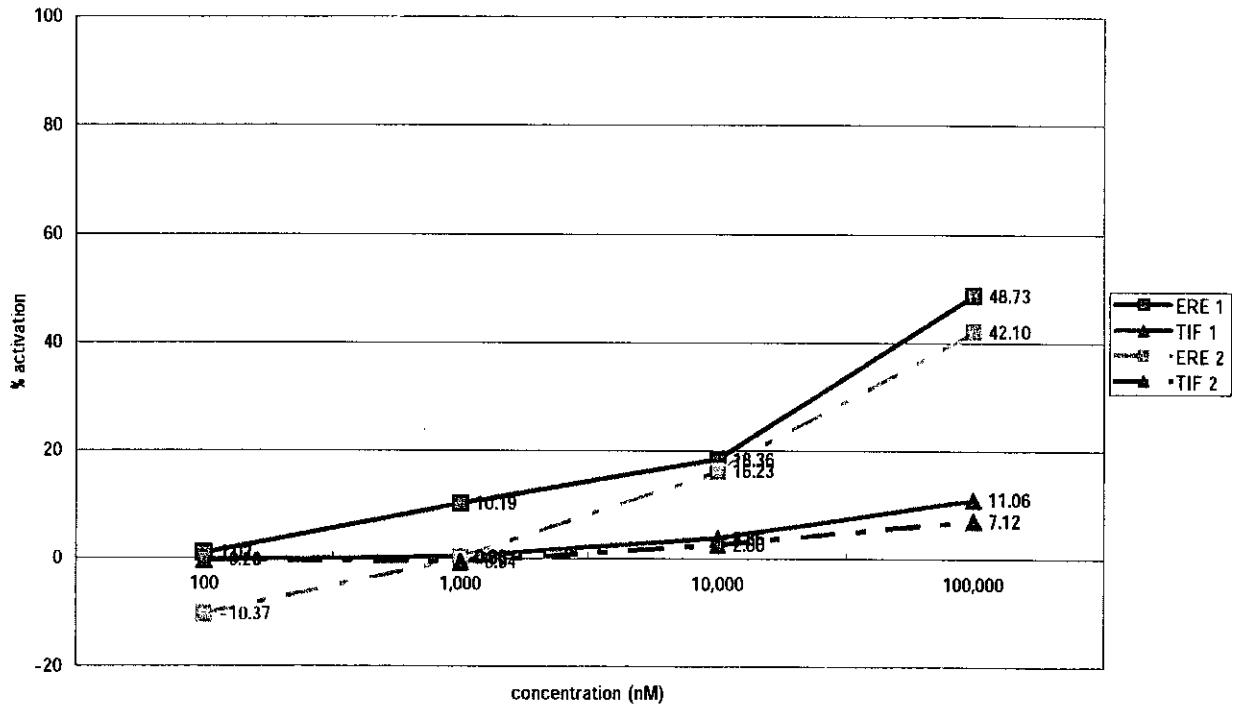
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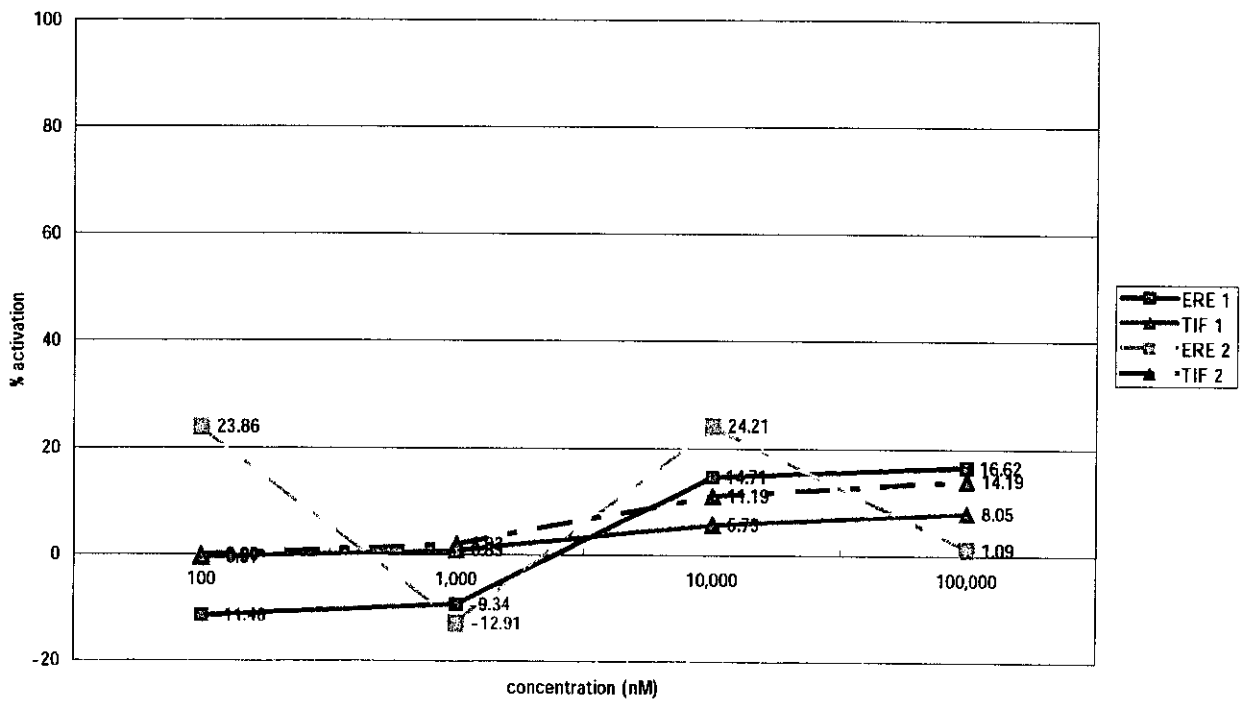
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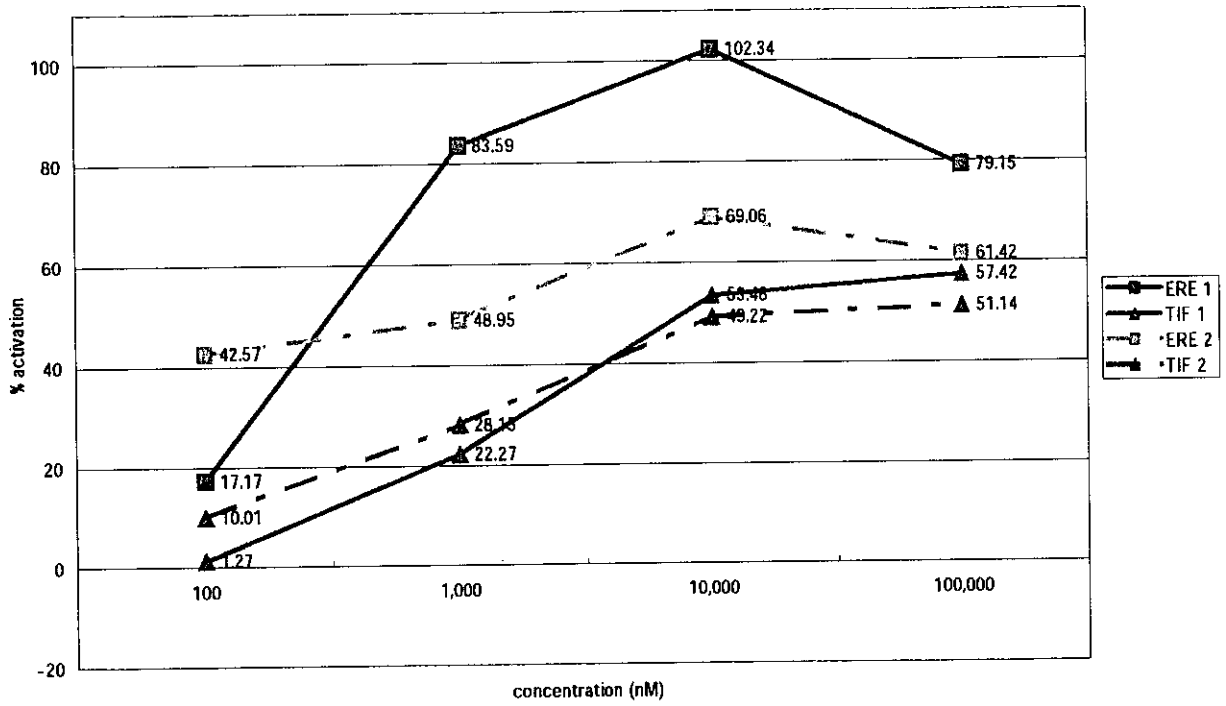
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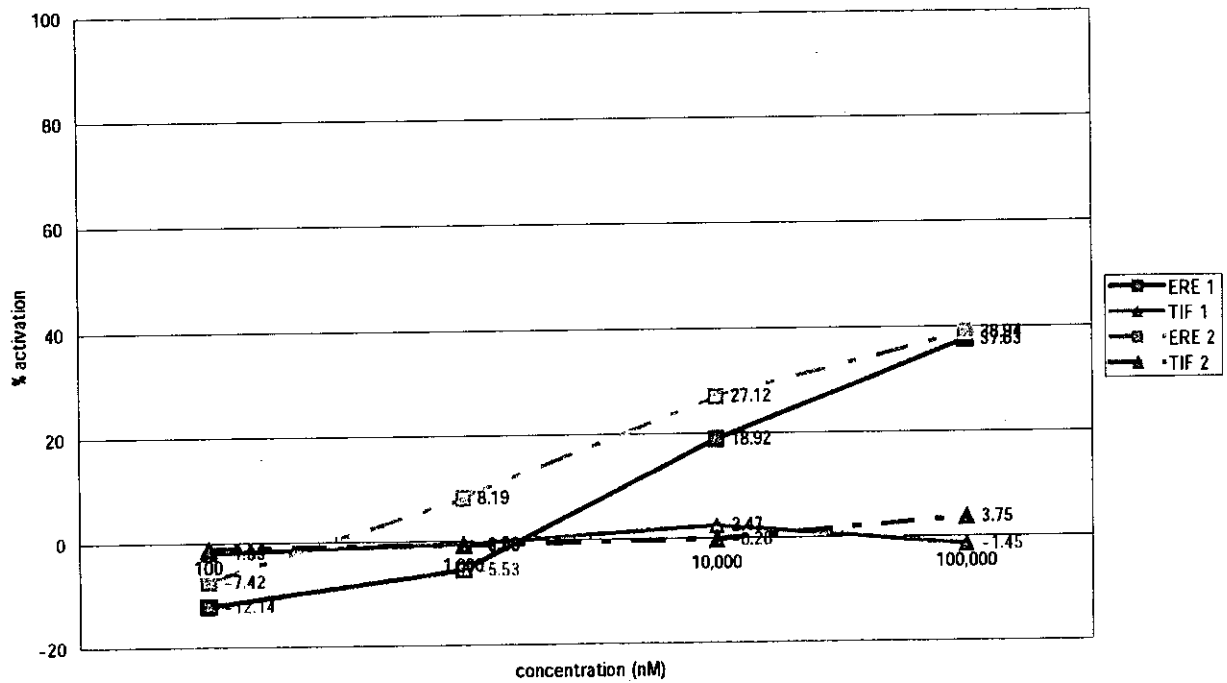
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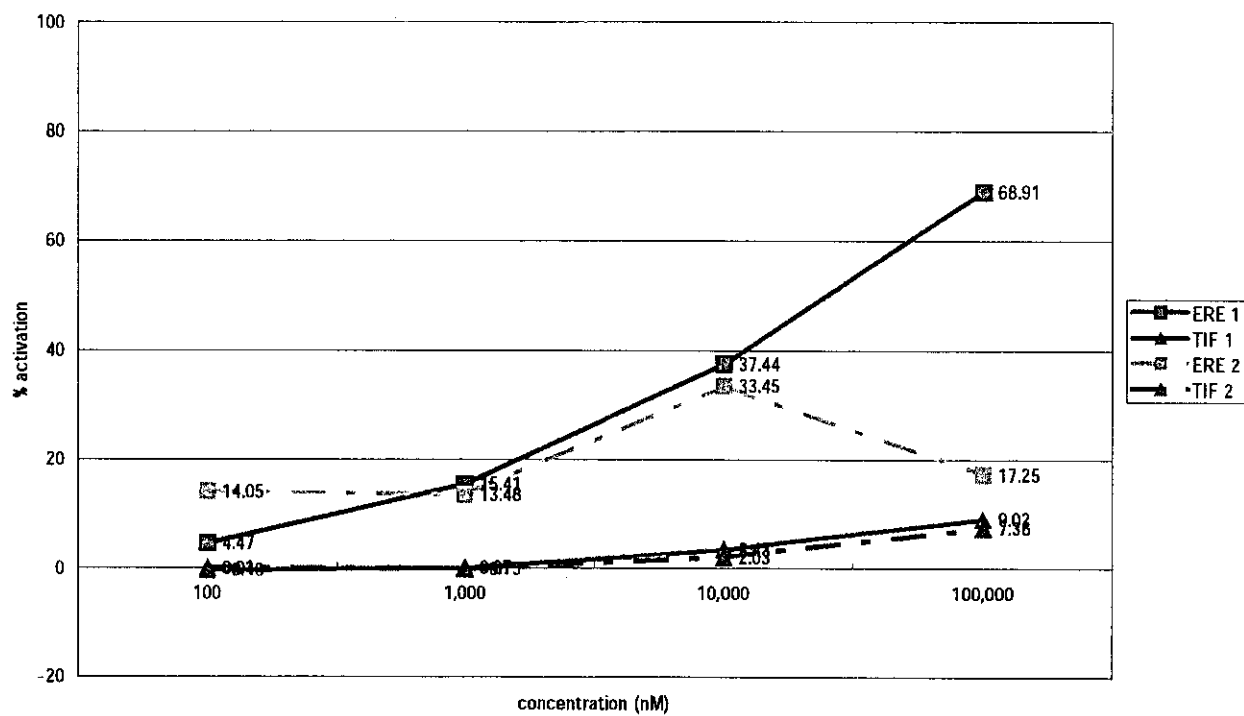
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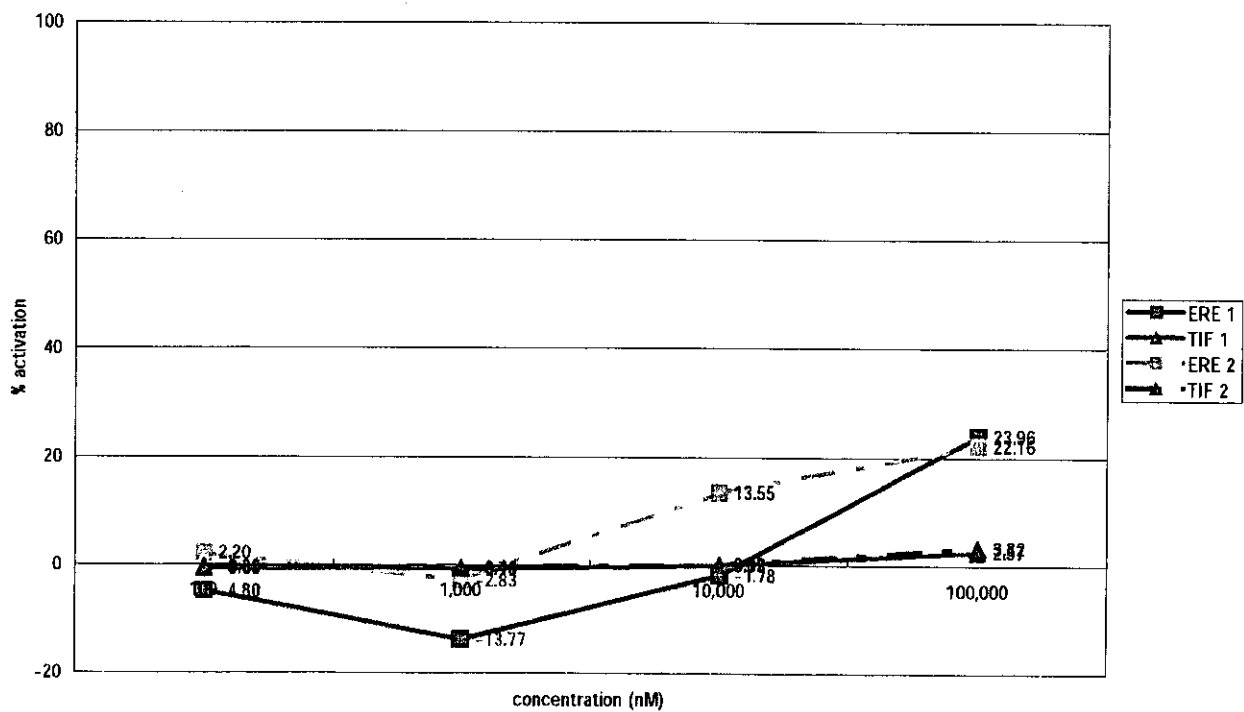
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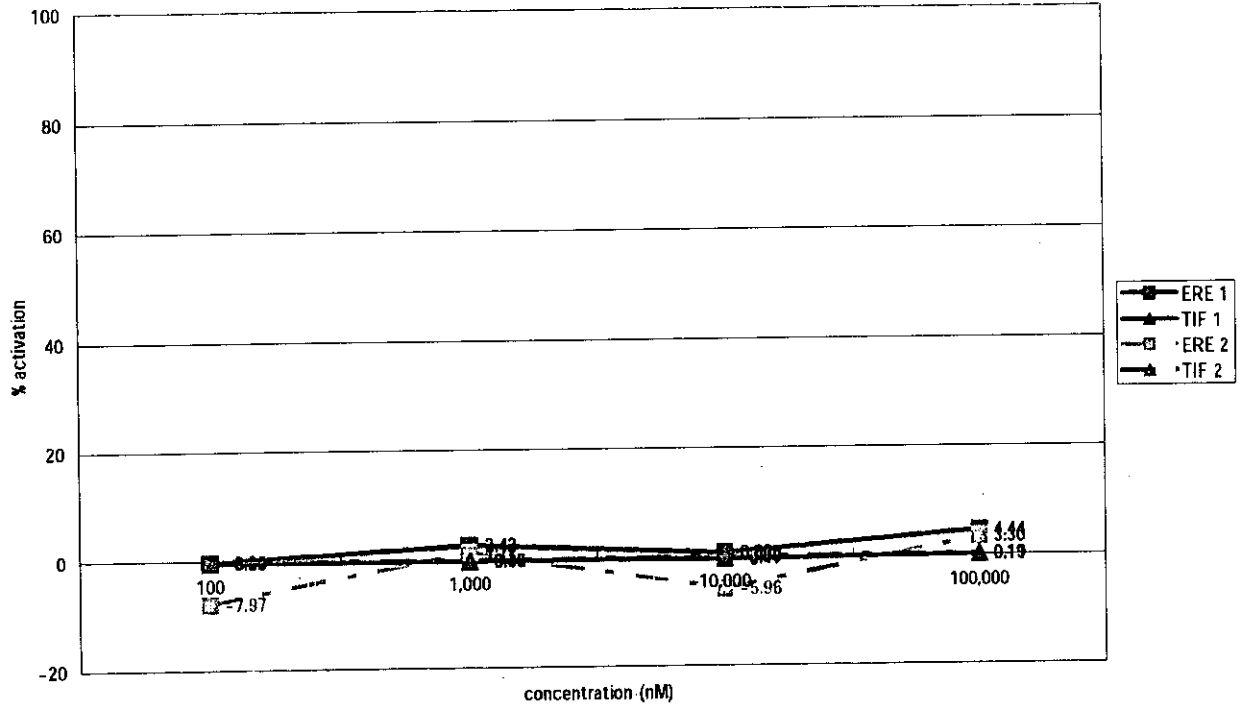
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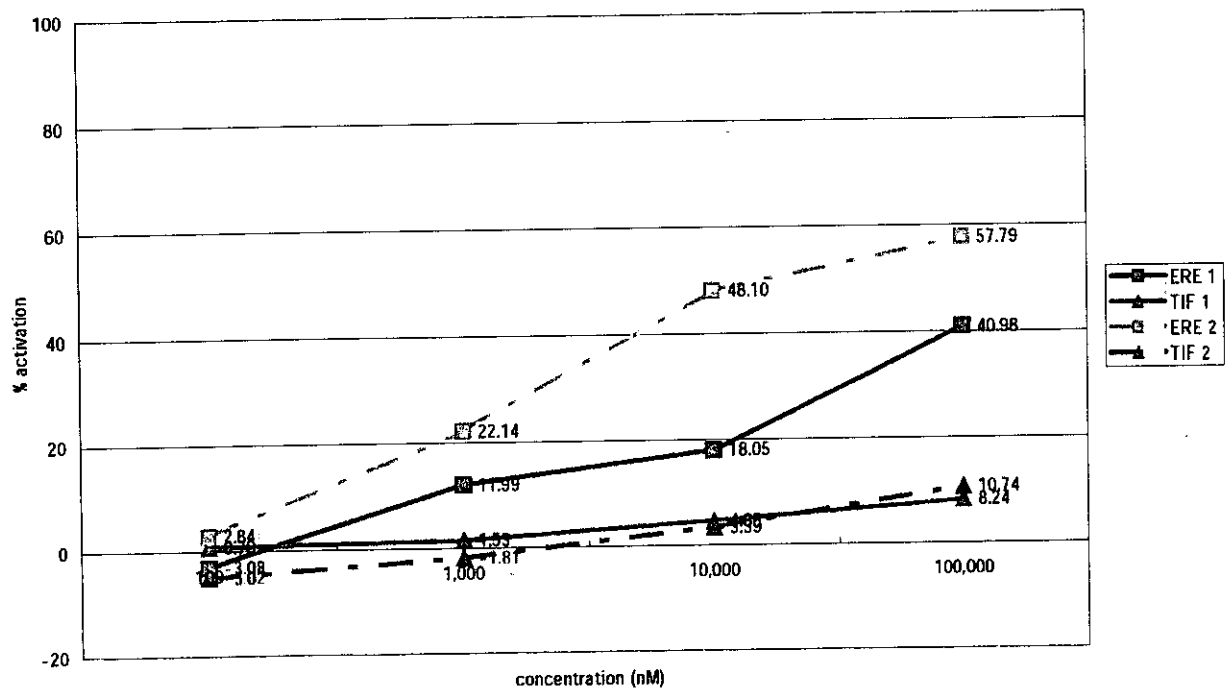
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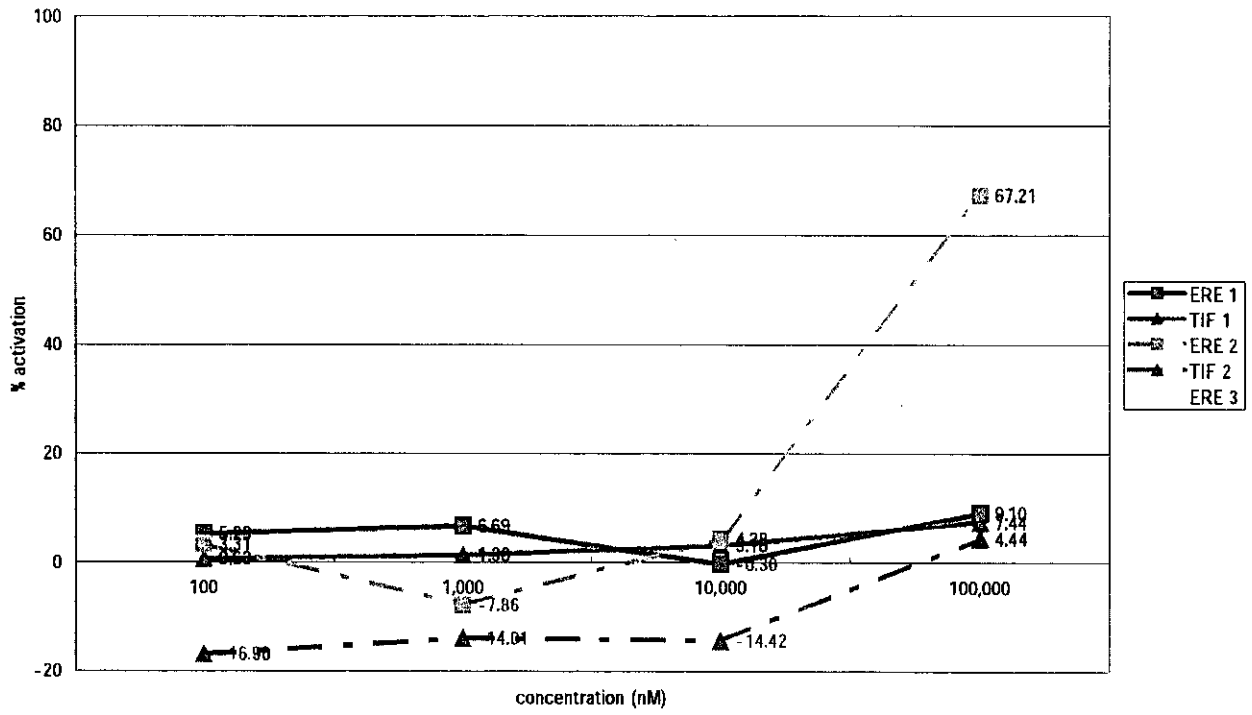
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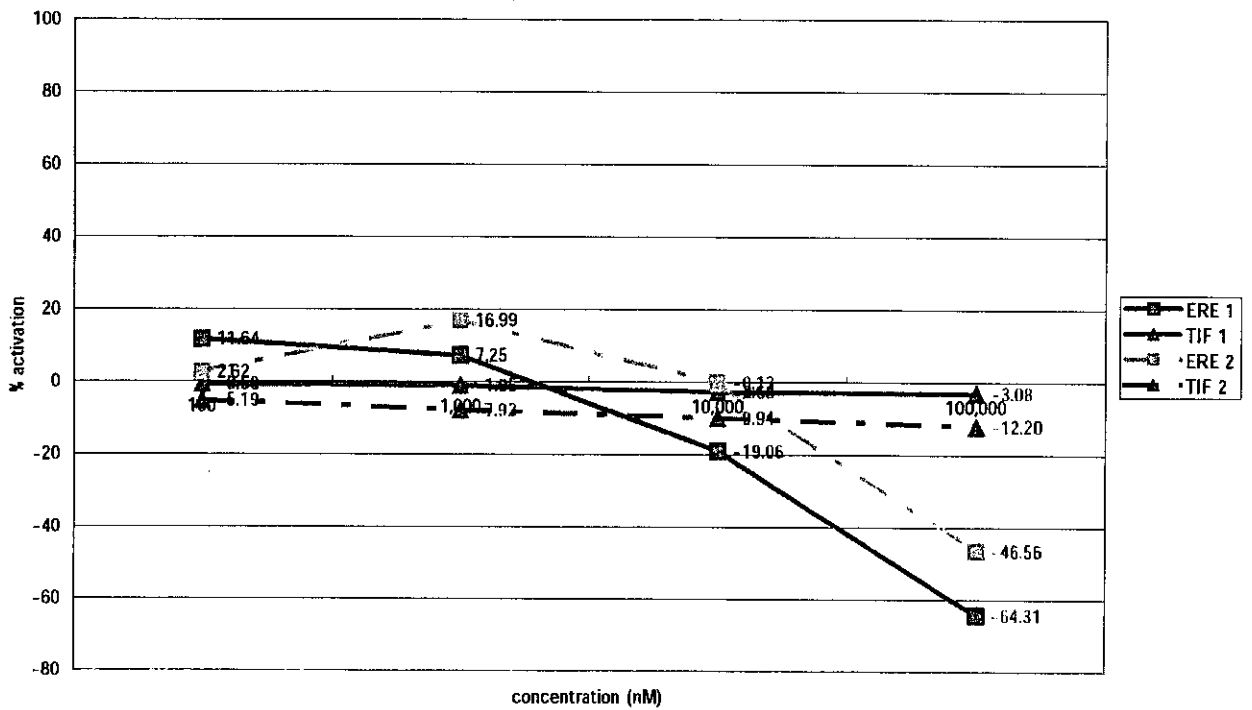
ER579



ER580

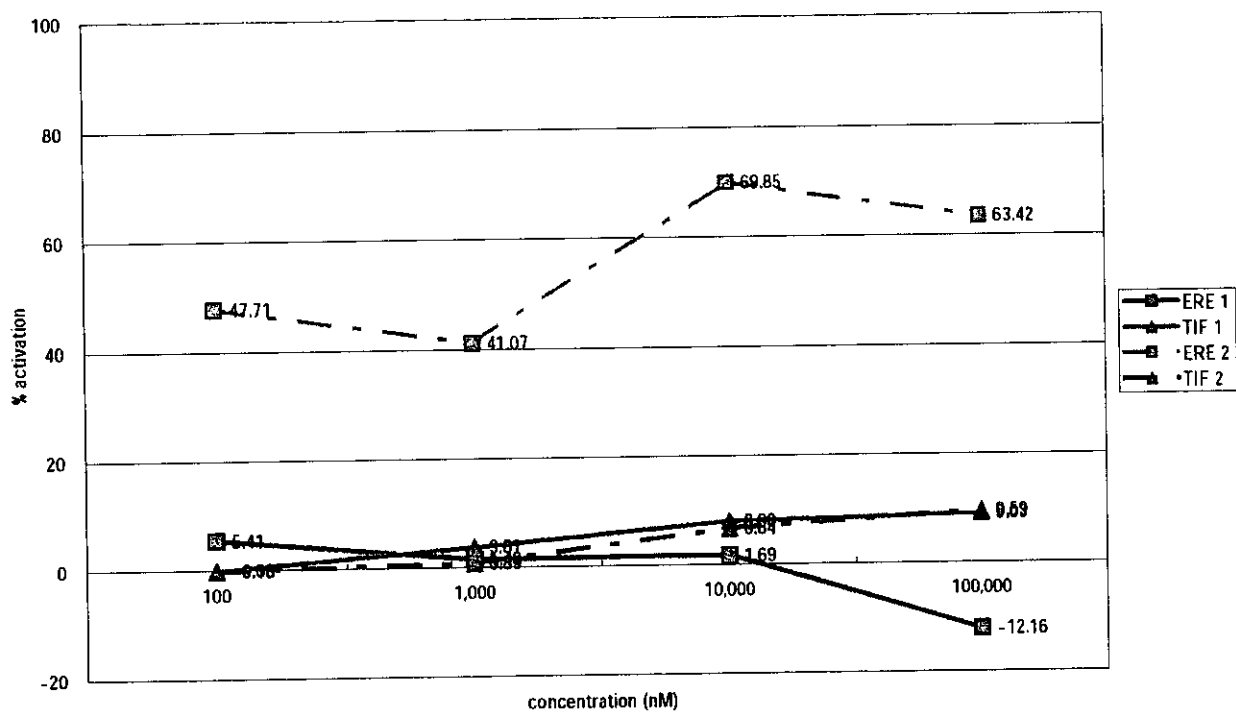


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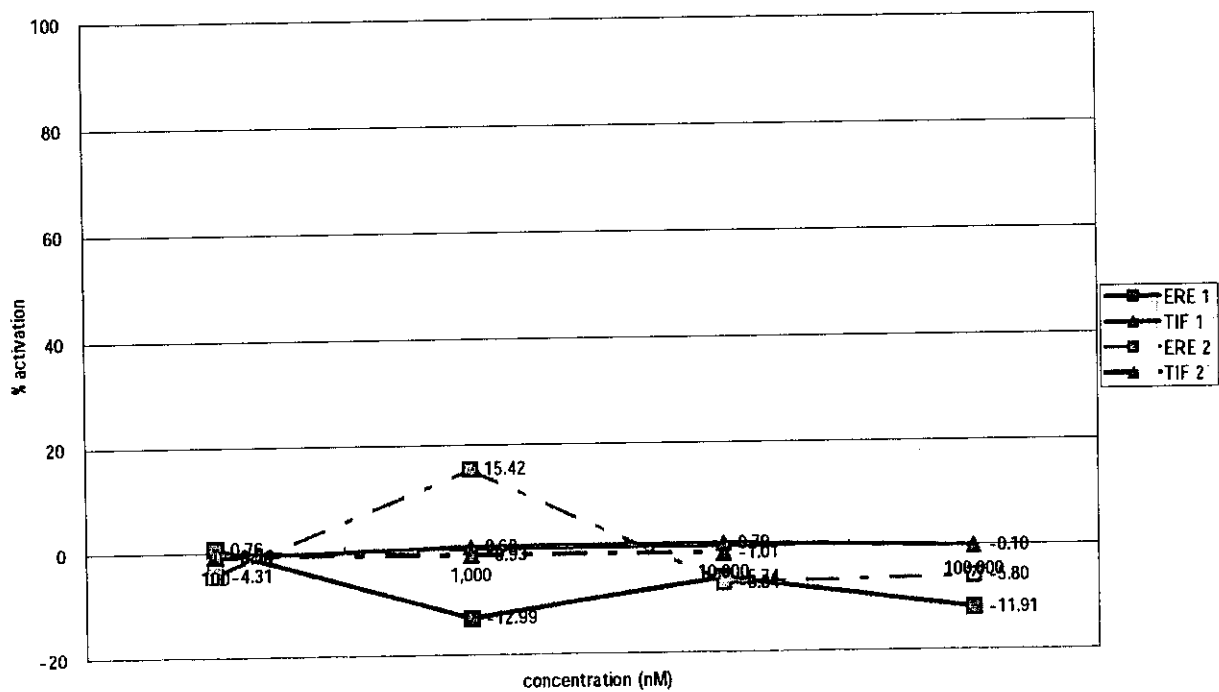




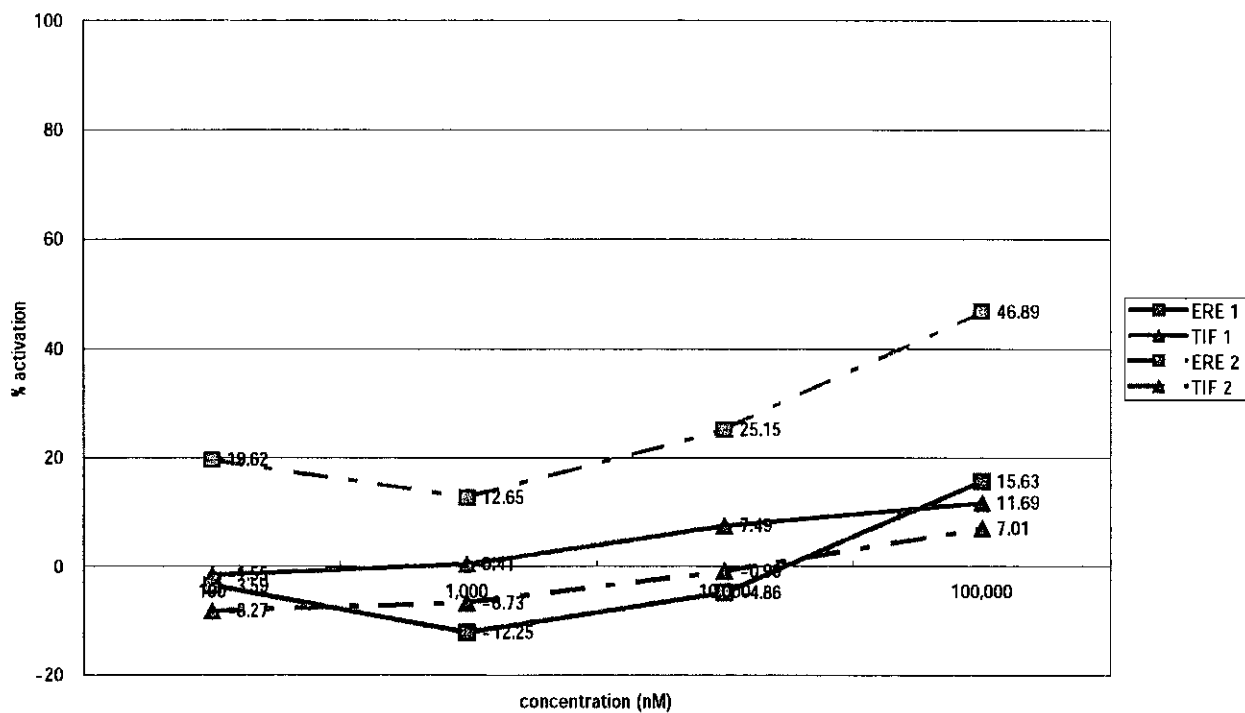
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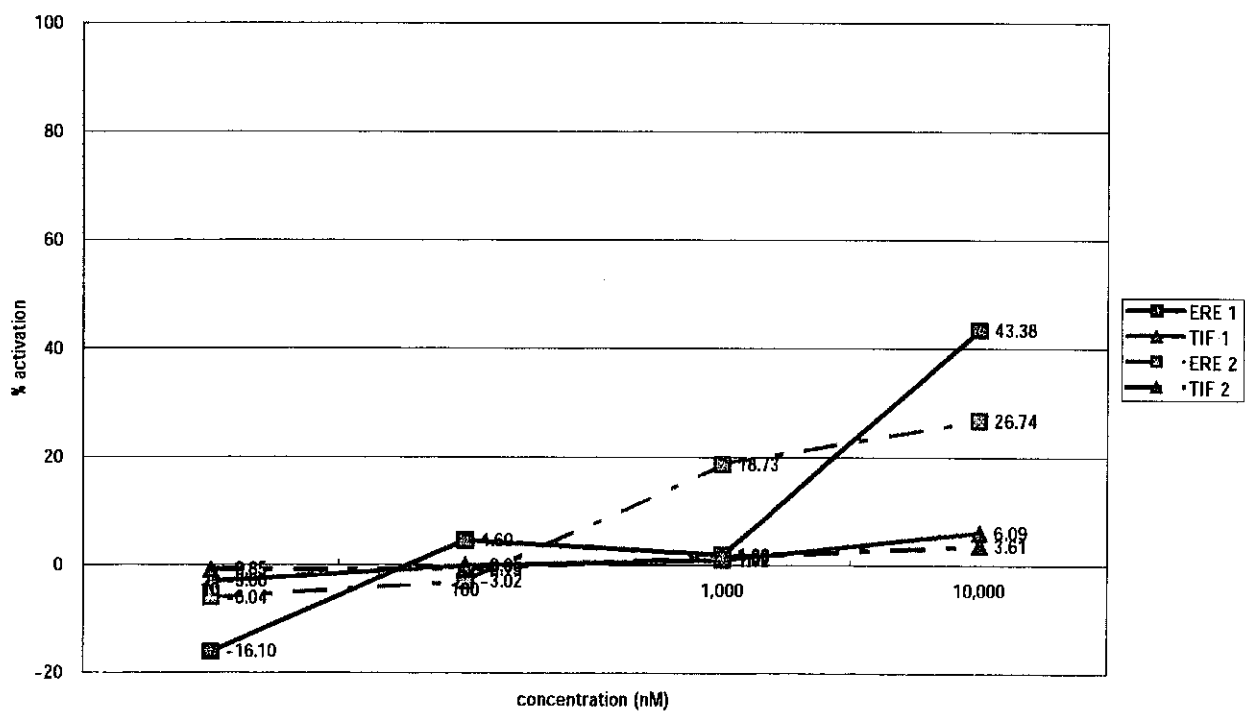
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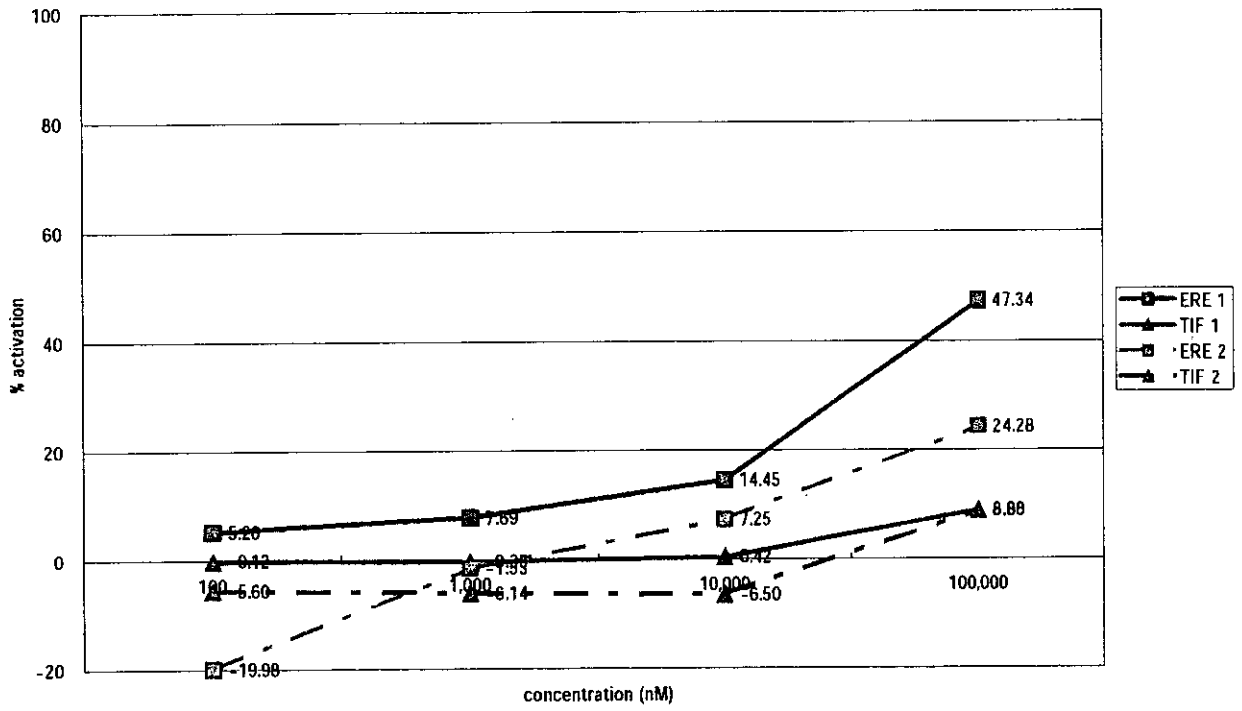
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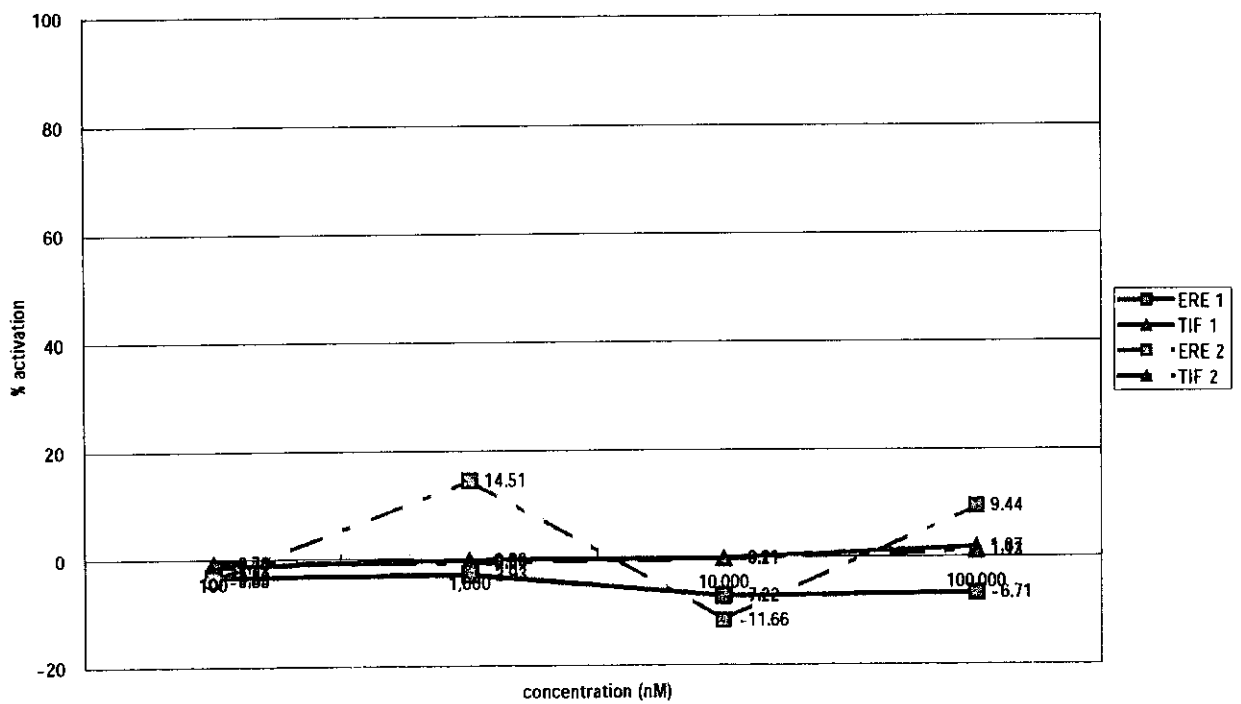
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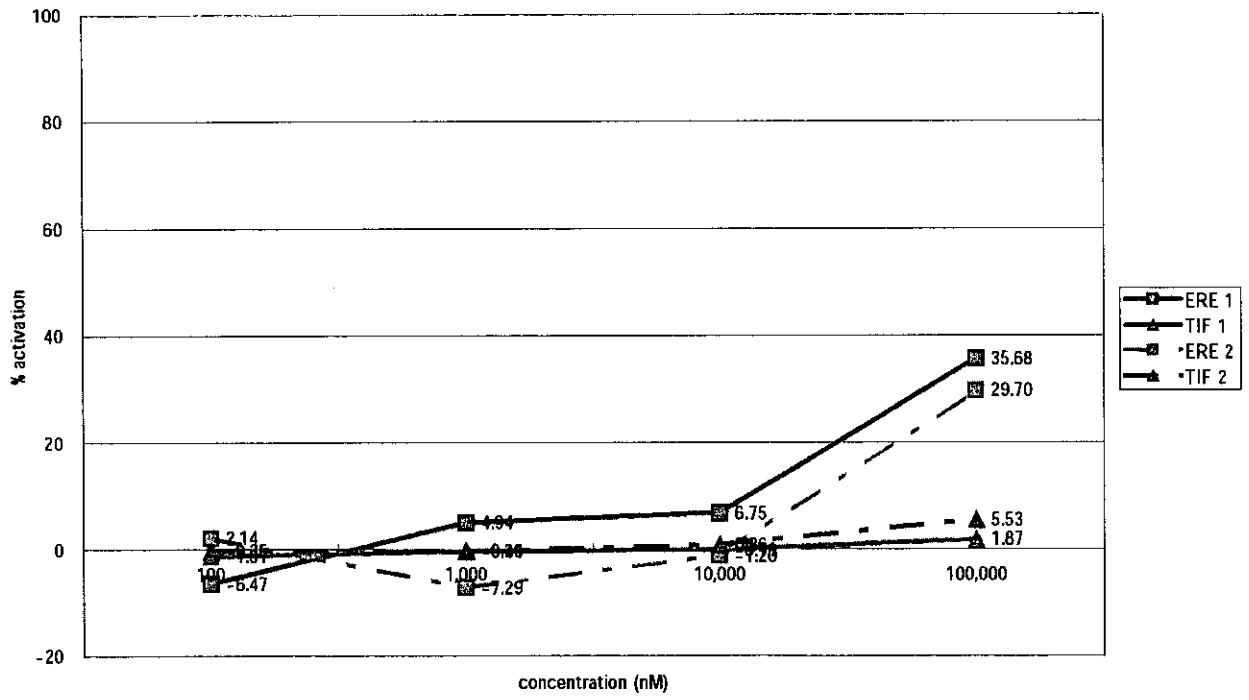
ER587



ER588



ER589



ER590

